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THE ANTENATAL AND INTRANATAL FACTORS IN NEONATAL PATHOLOGY: AN ATTEMPT TO EXPLAIN THE PECULIARITIES OF THE MORBID STATES OF THE NEW-BORN.*

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On the dividing line between antenatal and postnatal pathology lies neonatal pathology, a sort of unexplored territory, a "No Man's Land," liable, however, to incursions from both sides, those of the weaker kind coming over the antenatal boundary. Between the surgical injuries and maladies of the life that is after birth and the diseases and deformities of the fetus and embryo are situated the morbid conditions of the new-born infant, conditions which interest both the pediatrist and the obstetrician. Investigation of them has indeed gone on from both the pediatric and obstetric standpoint, but with more activity it has seemed from the former than from the latter. Nevertheless, it is well to bear in mind that the maladies of the new-born have relations not only with the diseases which occur later but also with the pathologic states which have happened earlier in life. Just as neonatal life is the link between postnatal and antenatal life, so neonatal pathology is the link between postnatal and antenatal. It offers problems for solution which require that we take into account both the conditions which precede and those which follow birth; its study further is helpful in throwing light on these same conditions, hence its great value. That neonatal morbid states offer peculiarities of very marked kind hardly calls for proof. It need only be pointed out that in order to emphasize these peculiarities a nomenclature has come into use which adds to the name of the disease the word "neonatorum." In this way the terms "cephalhematoma neonatorum," "pemphigus neonatorum," "icterus neonatorum," "melena neonatorum" and many others have gotten a place in medical terminology. Sometimes the word is "nascentium," as in "trismus nascentium," but the meaning is the same. That peculiarities exist is not questioned. There is, however, considerable doubt whether a sufficient explanation of these peculiarities is yet possible.

THE NEONATAL PERIOD OF LIFE.

In every period of life physiology largely dominates pathology; the diseases of the child or of the aged reflect in their characters the physiology of childhood or of old age. The age peculiarities of disease are in great measure the expression of the age peculiarities of health. The greater the difference between the physiologic conditions of two epochs of life, the greater will be the differences between their pathologic manifestations. The physiology of the new-born stands out very prominently from that of all the other periods of extrauterine life, and in like manner its pathology differs markedly from that of childhood, adult life, and age.

PHYSIOLOGY OF NEONATAL LIFE.

The period of life which has been termed that of the new-born infant may be regarded as beginning with the first maternal labor-pain and ending about the close of the first month of life. It includes, therefore, a period of time which may be called intranatal, that during which the infant is passing through the birth-canal; and another, truly neonatal, during which the infant's body is adapting itself to its new environment.

1. *Traumatism.*—In the intranatal period the infant is subjected to what must be, even under the best circumstances, a somewhat violent traumatism. Birth, without being abnormally difficult, is the traumatic transition from an intrauterine to an extrauterine existence. During the first month of life the organism is recovering from the effects of its birth-traumatism.

2. *Readjustment.*—Traumatism, however, is not the only occurrence in the physiology of this period of life. It is during these three or four weeks that the organs of the fetus have been taking up the work now thrust on them and formerly performed by the placenta. It is a time of readjustment, of adaptation, of alteration, of metamorphosis, and of transition.

Some of the organs of the infant are truly born at birth, in the sense that they begin then for the first time to perform the special functions for which they are intended. In a very evident way the lungs present an example of this organic awakening. The kidneys, also, and the intestines may be cited; but in them it is rather an increase in activity than a commencement of functioning that occurs. Other organs change the character of their physiologic activity; the liver becomes probably less a blood-forming and more a bile-forming viscus, and it may also take on the function of storing up mineral poisons, an act previously performed by the placenta. Yet other organs, such as the thymus, tend to become quiescent, and by and by commence to atrophy. The placental vascular system within the body of the infant, consisting of the umbilical arteries and vein, the ductus venosus, the foramen ovale, and the ductus arteriosus soon shrivel up or close, while the left side of the heart and the pulmonary vessels take on greater activity.

These, then, are the outstanding characters of the physiology of the new-born infant—its traumatic transference from the interior of the uterus to the external world,

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and its organic readjustment to suit its new environment—and it remains to be inquired how the pathology of this period of life is influenced by them.

PATHOLOGY OF NEONATAL LIFE.

1. *Birth-traumatism Factor in Neonatal Pathology.*—That birth, even under circumstances that may be described as normal, is traumatic to the infant is not simply a matter of opinion; it is capable of demonstration. In a paper on "The Head of the Infant at Birth," read before the Edinburgh Obstetrical Society some years ago[1], I gave a series of cranial measurements which showed that five or six days require to elapse after birth before the head returns to the form which it had before the commencement of labor. To ascertain the shape of the unmoulded or normal head I took the head diameters of infants removed by the Cesarean section, of fetuses in the published cases where maternal death had occurred in the later months of pregnancy and where frozen sections had been made, and of an infant removed post-mortem from the uterus of a woman who had died of pneumonia before labor set in. It appeared that although the heads differed in actual size, their cranial diameters (maximum, occipitomental, occipitofrontal, suboccipitobregmatic, biparietal, and bitemporal) all had the same relative length. I then measured a series of heads at or soon after birth and found that these cranial diameters no longer bore the same relation to each other; in all of them there was a diminution in the occipitomental, occipitofrontal and suboccipitobregmatic diameters, and an increase in the maximum. In other words, the birth traumatism had produced a compression of the head in the suboccipitobregmatic plane and a compensatory enlargement in the plane of the maximum diameter. Every student of obstetrics knows how this "moulding" of the head is produced, and that it occurs in normal as well as difficult or delayed labors, being, however, more marked in the cases with a prolonged second stage. Further, I found at the end of about a week the head had again taken the normal form; the effects of the birth traumatism had passed off, and the cranial diameters had regained their antenatal relative length.

It may be said that head-moulding is so constant that it is not to be regarded as pathologic; but it is certain that if the same amount of distortion were produced by any cause acting on the infantile head after birth, it would by most people be looked on as morbid. Further, the cranial deformity resultant on moulding is often intensified by the presence of what is known as the "caput succedaneum," which in its morbid anatomy is simply a bruise, consisting as it does of a serous or serosanguineous effusion into the loose connective-tissue between the scalp and pericranium. It differs from the typical bruise, the result of a blow, in that the swelling does not occur in the region subjected to pressure, but in the area within the girdle of contact, which is the only part of the fetal body which is not under great pressure. None the less, however, the caput is traumatic. When the injury is to the effusion of blood as well as serum the result has been called a subaponeurotic cephalhematoma.

The deformity of the infant's head due to moulding and the formation of the caput has been cited as an instance of neonatal state entirely the result of the birth-traumatism; but other conditions which are less common and more distinctively pathologic are not wanting. Thus, facial paralysis in the new-born may be due to pressure of the contracted maternal pelvis or of the midwifery forceps on the facial nerve at the point where it emerges from the cranium at the stylomastoid foramen. Fractures of the long bones, dislocations, and wounds of various kinds and in various regions of the body may result from version and from manual and instrumental extraction of the infant. Hemorrhages into the cranium and spinal canal, into the kidneys, stomach, intestine, testicles, and liver, and into the sternomastoid and other muscles are, as Spencer[2] has ably shown, not rarely the results of the traumatism of birth; the relation of the effects of the hemorrhage to the labor may be less readily traced, as in the case reported by Spencer where intestinal obstruction proving fatal on the fourth day of life was found to be due to a hematoma of the cecum which had blocked the bowel.

In all these instances the relation between the birth-traumatism and the pathologic condition is a perfectly direct and simple one; it is not doubtful that the intranatal injury is the cause, and generally the only cause, of the neonatal morbid state. There are other maladies of the new-born which are equally directly, if not so apparently, due to labor; they are the intranatal infections. A well-known example is found in ophthalmia neonatorum, which is caused by gonococcic infection of the infant's eyes during the progress of parturition. A less familiar instance is septic pneumonia occasioned by the aspiration into the child's bronchi and lungs of vaginal secretions containing streptococci. Infantile stomatitis, vulvitis, and vaginitis sometimes originate in the same way. According to Kader[3], muscular torticollis of the congenital type is always due to lesions of the sternomastoid which become infected, and thus set up a myositis. It seems certain that further observations will disclose yet other forms of intranatal infection. It must also be noted that the infection may be multiple, for Bond[4] has reported a case in which the eyes, umbilicus, vulva, and skin glands of a newly-born infant all seem to have been infected by septic matter from an old lacerated cervix uteri during labor. Incidentally there is, in facts like this, a strong argument in favor of the thorough cleansing of the vaginal canal for the sake of the infant during the progress of labor. The cleansing should be as complete as if a hysterectomy were contemplated.

During labor, therefore, the infant being born is in danger of traumatism and of infection from the maternal parts; and in this way many of the morbid states met with in neonatal life are explicable. It remains to be noted under this heading that the traumatism will predispose to the infection.

2. *Readjustment Factor in Neonatal Pathology.*—As has already been pointed out, the birth-traumatism is one only of the factors which impress on neonatal pathology its peculiar characters. There is also to be taken into account the readjustment of functions rendered necessary by the change from an intrauterine, almost parasitic, existence to an extrauterine and independent one. This readjustment to the new environment, although normal in the sense that it is common to every infant born alive into the world, nevertheless verges closely on the pathologic. It subjects the infantile organism to a severe strain. In this respect it resembles pregnancy; it is not pathologic, but it may at any moment become so. That it often does pass over into the morbid is made distressingly evident by the enormously high infantile mortality during the first month of life.

Some of the most noteworthy changes in the physiology of the new-born infant are associated with what may be called the closure of the umbilical avenue of entrance to the body. During fetal life the umbilical vein

has been the channel through which supplies of oxygen and foodstuffs have reached the organism; with the establishment of pulmonary respiration and gastric digestion, and more immediately by separation of the placenta and the section of the cord, this mode of entrance is no longer required or available. It becomes, however, a danger, and, under certain circumstances, menaces the life of the new-born infant. It may become an avenue of infection. Streptococci may gain entrance either when the cord is divided and ligatured, or some days later, when the stump of it separates. It is this that gives to erysipelas neonatorum its peculiar characters. The infection is by the umbilicus, consequently the erysipelatous process is at first peri-umbilical and sub-umbilical in distribution. Streptococci may also pass in the umbilical vein to the liver; then infectious hepatitis with jaundice will no doubt follow.

Evidence of the influence of the readjustment factor on neonatal maladies is found also in the small power of resistance to the effects of microbes that the organism offers at this period of existence. Erysipelas neonatorum is very frequently fatal, and the extraordinary manner in which new-born infants succumb to microbic infection of all kinds is one of the most noteworthy of the peculiarities of neonatal pathology. The maladies which have been named after von Ritter, after Winckel, and after Buhl, tetanus or trismus neonatorum, and Epstein's hemophilia of the new-born—which is closely allied to septicemia—all have a fatality which can only be fitly described as terrible. The low power of resistance to pathogenic microbes, shown by the neonatal organism, has been ascribed to many causes, in most of which, however, it is possible to discover the factor of the readjustment which physiologically follows birth. For instance, it is stated that the external defenses against microbic onslaughts are weak in the new-born. The physiologic desquamation of the cuticle makes it easier for the germs to thus gain entrance. The exact cause of this exfoliation is not indeed known, but it is reasonable to suppose that it is due to the drying effect of the atmospheric air on the skin so long soaked in the liquor amnii—to a condition, in other words, which is part of the great readjustment process. In Ritter's disease, or as I have called it[5] "keratolysis neonatorum," the prominent clinical phenomena are looseness of attachment of the cuticle and exfoliation of it, along with pyemic symptoms; and it is, in my opinion, quite possible that the excessive exfoliation may be the cause rather than the effect or the concomitant of the systemic infection. Again, it is affirmed, the internal defenses of the new-born are also weak, as is shown by defective phagocytosis and the absence or feebleness of the febrile reaction. Now, in postnatal life it is to the lymphatic glands and spleen that one looks for the formation of the beneficent phagocytes, and in the new-born these organs are not yet specially active. The thymus and thyroid, which perhaps perform this function during intrauterine life, have ceased to do so actively, while the spleen and lymph-glands have not begun to do so to any great extent; the readjustment is in process, but it is not yet complete. Finally, it has seemed to me that the birth-traumatism may even here play a part, for it is well known that a period of special susceptibility to infectious conditions follows injuries and surgical operations. At any rate, there is here further support of the statement that the peculiarities of neonatal pathology find their explanation in the birth-traumatism and in the physiologic readjustment following birth.

A very common condition of the new-born is jaundice. At present I refer only to the so-called idiopathic icterus neonatorum. Possibly no other disease has had so many pathogenic explanations attached to it as has jaundice of the new-born; yet in nearly all of them a reference to physiologic readjustment is prominent. For instance, it has been ascribed to blocking of the bile-ducts with desquamated epithelium, the epithelial exfoliation being analogous to the epidermic casting off to which reference has already been made. Stasis in the portal vessels and stasis in the bile capillaries from edema of Glisson's capsule, both in their turn due to the circulatory changes following the section of the umbilical cord, have been brought forward as possible causes. The suppression of the umbilical circulation produces lowering of the blood-pressure in the hepatic capillaries and so leads to the passage of more bile into the blood; this is another and apparently a very simple explanation. Theories, hematogenous as well as hepatogenous, have been advanced, and an increased destruction of red blood-corpuscles has found supporters. As a matter of fact, the condition of the blood in the new-born is a transition between the characters which are present in the fetus and those met with in the infant; its peculiarities are due to readjustment to adapt it to the new circulatory requirements. If by any chance the circulation retains any of its intrauterine characters, such as patency of the foramen ovale, then some of the peculiarities of the blood, e. g., large number of red cells, etc., remain.

It is unnecessary, however, to adduce further instances of the manner in which neonatal physiology tinges with its own peculiar colors neonatal pathology, and gives to it something which distinguishes it from the pathology of every other part of postnatal life. It is needful to pass to the consideration of another factor in the maladies of the new-born, to which I have as yet made no reference, to-wit, the antenatal.

3. *Antenatal Factor in Neonatal Pathology.*—Much that I have just said concerning the pathology of the new-born has been preparatory to the statements now to be made. I have been gradually leading up to the antenatal in the consideration of the neonatal. It need scarcely be insisted that any survey of the morbid conditions of the new-born which does not include a view taken from the standpoint of antenatal predisposition is incomplete and certain to lead to wrong conclusions. A very short and superficial study of the diseases which follow birth serves to demonstrate that all their peculiarities are not explicable by the birth-traumatism or by organic adaptation to environment or by both combined. There is a third factor, the antenatal, and it is of great importance.

PROJECTION OF THE ANTENATAL INTO THE NEONATAL.

It is true that, forensically, an infant is not alive until "it has manifested some certain sign or signs of life after it is completely born," but physiologically this is sheer nonsense. "The law does not account it murder to kill a living child while it is being born, nor to cause the abortion of a living ovum." This is law, it is not biology. Birth is not the beginning of life; it is the beginning of a stage of an individual life, the commencement, if you will, of extrauterine existence. The impress of nine months' very active life, intrauterine it is true, but none the less vital, is already on the infant at the moment of birth. Its effects, pathologic as well as physiologic, are projected into neonatal life: "As nine months go to the shaping an infant ripe for his birth." Some instances of this projection of the antenatal into the neonatal may now with advantage be brought forward.

THE ANTENATAL FACTOR IN CEPHALHEMATOMA NEONATORUM.

Reference has already been made to the effects of the birth-traumatism on the head of the new-born infant, and to the formation of what was sometimes called the subaponeurotic cephalhematoma; but the term cephalhematoma is more often given to another morbid condition having quite another mode of origin. About once in 300 labors there appears on the head of the new-born infant, and almost always in the neighborhood of the posterosuperior angle of the right parietal bone, a tumor having a soft center and a hard periphery. This usually develops on the first or second or third day after delivery, and is not uncommonly mistaken for a hernia cerebri; but it does not pulsate and pressure on it does not reduce its bulk or cause signs of cerebral compression. It consists of an effusion of blood between the pericranium and the underlying bone; the hard margin is caused by a deposit of new bone along the line of separation of the pericranium. Some weeks usually elapse before the swelling disappears. It is natural enough to associate this occurrence with the birth-traumatism, and it has been ascribed to difficulty in labor and instrumental interference; but it also frequently follows confinements which were both easy and rapid, as in a case[6] which I reported in 1893. The cause of the subpericranial blood effusion has been looked for and found in the circulatory conditions which exist immediately after birth, the establishment of respiration giving an increased impetus to the blood-current. Brittleness of the blood-vessels and easy separation of the pericranium from the underlying bone have likewise been adduced. These explanations, however, all fail to account for the rarity of its occurrence, and it has been found necessary to look to predisposing antenatal conditions. Several have been suggested; but reference need only be made to that with which Féré's name has been associated. He[7] found that at the site of predilection of the cephalhematoma, the posterosuperior angle of the right parietal bone, there were occasionally seen fissures running in the bone in a radiate manner, one toward the sagittal suture, another toward the lambdoidal. The sagittal fissure occasionally united with a similar one in the opposite side to form the fontanelle of Gerdy. To this arrest of development, as shown by defective ossification in the region "obelion," Féré looked for an explanation of the pathogenesis of subpericranial cephalhematomata. Even slight pressure on this part of the head which shows this anomaly will cause extension of these fissures and rupture of the small blood-vessels which cross them; effusion of blood will quickly take place under the pericranium, which is at this point easily separated from the bone. The fissural theory is also supported by the not infrequent association of the external cephalhematoma with an effusion of blood between the dura mater and the skull; the two communicate by the fissure or fracture. In this instance, therefore, the traumatism of birth is not in itself sufficient to account for the morbid condition; the antenatal has to be invoked; and a feasible explanation is found in delayed ossification of the region "obelion."

THE ANTENATAL FACTOR IN JAUNDICE OF THE NEW-BORN.

Ordinary jaundice of the new-born is usually explicable by an appeal to either the circulatory or digestive readjustment which follows birth; but now and again cases occur, often running on to a fatal issue, in which a satisfactory theory of origin is not to be obtained by a reference to neonatal states alone. In some of them it has been found on post-mortem examination that there is congenital obliteration of the bile-ducts; this condition is manifestly antenatal, but it is regarded by some as a primary malformation, and by other writers as due to intrauterine peritonitis. It can not be considered as yet settled whether the obliteration is caused by an embryonic or by a fetal morbid condition; but a very able setting forth of both sides of the question is to be found in Dr. John Thomson's monograph[8], published in 1892. In other cases the jaundice seems to have been caused by syphilitic hepatitis, or rarely by non-syphilitic interstitial hepatitis, also of antenatal origin. The importance of the study of the pathology of the fetus and embryo in such maladies is self-evident. From the purely clinical standpoint it is therefore well to bear in mind that icterus neonatorum, although usually due to passing neonatal states and so common as to be almost physiologic, is yet sometimes caused by antenatal conditions of grave import.

THE ANTENATAL FACTOR IN CONGENITAL DISLOCATIONS.

Another instance of the projection of the antenatal into the neonatal is found in the congenital dislocations. Within recent years there is probably no subject in orthopedic surgery which has been so much discussed as congenital dislocation of the hip. In my index to teratologic literature, for 1897, there were references to thirty-one papers, and in that for 1896 there were no less than forty-nine in which this malformation was dealt with. In importance these dislocations yield only to clubfoot. Unlike clubfoot, it is more common in girls than in boys. It is also apt to be hereditary, a fact which is in itself strong evidence in favor of its antenatal origin. Of course cases are met with in which violence, instrumental or manual, has caused dislocation of one or both hips during labor; but these are not instances of what is usually called congenital dislocation of the hip. In the vast majority of the reported cases of true, persistent, hip-joint dislocation, the preceding parturition has been neither difficult nor a pelvic presentation; further, it is usually not immediately after birth but some months later, when the infant begins to walk, that the dislocation becomes evident. The theory that the dislocation is entirely due to intranatal traumatism may be said at the present time to be abandoned. Of the theories that remain all look to an antenatal morbid state for the primary cause. According to one view the dislocation is due to external violence applied to the mother's abdomen during her pregnancy; according to another it is the prolonged but less active pressure of the amnion that is the pathogenic factor. An intrauterine destruction of the tissues of the joint is the leading feature in a third hypothesis; yet another regards all the changes as due to a primary alteration of the nervous system, causing either retraction or paralysis of the periarticular muscles. These are theories based on fetal pathology; but embryonic morbid changes have also been invoked, and several forms of arrested development of the acetabulum and surrounding parts have been adduced in explanation. Manifestly the settlement of the question of pathogenesis would do much to show whether the surgeon should prefer the bloodless method of treatment of Paci or of Pravaz or the cutting operation of Hoffa. At any rate, the antenatal nature of the condition explains to a large extent the difficulty experienced in dealing with it by either method.

THE ANTENATAL FACTOR IN CONGENITAL FACIAL PARALYSIS.

Congenital facial paralysis is, as has been already stated, generally the result of the pressure of the for-

ceps in labor. It is then peripheral in type and commonly affects all the three branches of the seventh nerve, with the result that on the affected side the eye can not be entirely closed nor the muscles of the forehead wrinkled. It may also be of central origin when only the two lower branches of the nerve are paralyzed; in this case it may still be due to birth-traumatism, but it may also have been caused by an antenatal morbid state. The last-named cases are those in which the paralysis persists for a long time. The malady may be of the family type, as in the two brothers recently reported by H. M. Thomas[9], in whom it seemed to be due to antenatal absence of some of the facial muscles, namely those supplied by the facial nerve.

THE ANTENATAL FACTOR IN CONGENITAL FRACTURES.

The fractures which are met with in the new-born infant usually point to birth-traumatism; but there are also cases in which it is necessary to suppose the existence of antenatal fragility of the bones. The extraction of the child from the maternal passages may be the determining cause of the fracture, but it is quite evident that the predisposing factor lies in such cases in defective ossification of the bones. Especially is this clear when the break occurs one or two days after birth and without any evident cause. Such a case was recently brought under my notice by Dr. J. S. Fowler of Edinburgh. The child was apparently quite healthy when born; it was an ordinary head presentation and no interference was required. Four days later it began to cry and cried all night, and in the morning a great swelling of the left thigh was noticed. There was a very distinct fracture in the middle of the femur, not near an epiphysis. The break is now mending well, but with a rather large amount of callus. There was no history of any injury; there was no enlargement of any of the epiphyses; the limbs were well formed; and the child showed no signs of prematurity. It was significant, however, that the cranial bones exhibited very defective ossification; although there was no increase in the size of the head nor any sign of abnormally high intracranial pressure, the state of the bones was exactly like that met with in hydrocephalus. Antenatal fragility seems the only possible explanation of such a case as the one recorded; when there are multiple fractures there can be no doubt at all.

THE ANTENATAL FACTOR IN OTHER NEONATAL MORBID STATES.

The examples given by no means exhaust the pathologic conditions of the new-born in which the antenatal is evidently present as a dominating and determining factor. Sclerema neonatorum is a malady in the causation of which atmospheric chilling of the body of the infant—a result of change in environment—is supposed to play an important part; but a study of all the facts has led one author to predicate congenital anomalies of the lymphatics, and another to look for a predisposing cause in antenatal lesions of the nervous system, and especially of the thermic centers. I have elsewhere[10] recorded a case of rupture of the spleen without external violence in a two-days-old infant; the autopsy revealed a predisposing cause in splenic friability from fetal syphilis. Again, Thomson and I have reported[11] two cases of congenital prolapse of the uterus in which straining after birth was no doubt the immediate cause of the displacement, but in which several antenatal factors—form of the pelvis, lumbosacral spina-bifida, etc.—were evidently present as predisposing causes.

Examples of this projection of the antenatal into the neonatal might be multiplied; one more may be given. About five years ago I attended a healthy patient in her first confinement, and observed that her infant's skin was absolutely destitute of vernix caseosa; the nurse also, a woman of large experience, remarked on the extraordinary 'cleanness' of the baby. Within three weeks I had to deal with the most widespread and severe attack of eczema neonatorum that I have seen, and that notwithstanding the absence of any exciting cause in the feeding or general hygiene. The sister of the above child, born about two years later, showed a nearly identical condition of the skin at birth and developed eczema and intertrigo of a peculiarly intractable kind. That antenatal absence of the vernix caseosa was the cause of the neonatal eczema in these cases can not be affirmed, but the coincidence was sufficiently striking to be suggestive.

SUMMARY.

From all that has been said above, it is clearly evident that if the characters of the diseases of the new-born infant are to be understood it is essential that account be taken not only of the facts that the infant's organism has just passed through a period of traumatism and is passing through one of readjustment to meet new requirements, but also that during the nine months of intrauterine life which precede birth, it may have been the sphere of morbid processes which have left their impress on it. It may come into the extrauterine environment already diseased or malformed or predisposed to some pathologic development. Like pregnancy, neonatal life is an epoch which has a physiology in many respects peculiar to itself, and which borders very closely on the pathologic, tending very easily to pass over into it. In a certain sense the ordinary vomiting of pregnancy is to the uncontrollable form, as the ordinary "physiological" jaundice of the new-born is to pernicious icterus neonatorum. Further, just as every woman brings with her into her pregnancy the results of her past pathologic history, so the new-born infant brings with him, out of his antenatal life into his neonatal existence, the effects of any morbid processes which may have attacked him *in utero*. In this way the pathology of pregnancy and the maladies of the new-born infant are both invested with peculiarities. *The peculiarities, therefore, of neonatal diseases are not inexplicable, but are the direct outcome of the action of the antenatal and intranatal factors on the organism at this period of life.*

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SEROUS CYST OF IRIS FOLLOWING DISCISSION FOR MILKY CATARACT.*

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Cysts of the iris are generally of traumatic origin and follow punctured and incised wounds inflicted by various substances as well as incisions made for the extraction of cataracts and for the relief of glaucoma. While

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the great majority are the results of traumata, yet there are many well-authenticated cases of spontaneous cysts of the iris. They have been noted in infancy and mature life and in cases where trauma can be positively excluded. Rosenschweig[1] reports a case in an infant of 3 months. The cyst wall was lined with stratified epithelium. Dr. C. F. Clark observed two cases of serous cysts of the iris, one in a child, 22 months, and one in a woman 23 years of age, in which there was no history of trauma. Collins[2] cites two cases of cyst of the iris with no history of trauma. Some doubt has been expressed as to the spontaneous development of a cyst in the iris.

Schmidt-Rimpler[3] records the history of a case of cyst which he had the opportunity of watching from its inception until its full development. The patient, a woman aged 46, suffered from a relapsing superficial ulceration of the left cornea, accompanied by iritis, but there was no evidence of perforation and no history of injury. When first seen it appeared as a small black spot on the iris, the size of a hemp seed. In a little less than two years it had grown until it measured 5 mm. vertically and 7 mm. transversely. It was removed by operation, and six months later it had been reproduced and was again removed. The walls of the cyst were formed by the iris, which was apparently split into two layers and was lined with a layer of endothelial cells.

The author concludes that the cyst developed from one of the crypts normally present in the iris. It is probable that the crypt was occluded by the plastic

iritis. The lymph streams continued to pour lymph into the cavity so formed, and thus it gradually increased in size. This seems a reasonable explanation of the origin of these idiopathic cysts which he considers lymphatic retention cysts. This case differs very materially from the majority of cases which are of traumatic origin and microscopically are lined with *epithelium*. In this one the cyst was lined with endothelium.

The literature on the subject of cysts of the iris is very abundant, and I shall not attempt to review it. The point of particular interest now is to ascertain how often this condition follows operations for cataract. The histories of the reported cases show that the great majorities of them follow punctured and incised wounds. So far as I can determine from the literature at my command, cysts do not often follow cataract extractions. I have referred to a few of them as bearing somewhat on the case I wish to present.

In 1867, Mr. J. W. Hulke[4] published a detailed account of nineteen cases of cysts of the iris. Of these, one followed an operation for discission, about seven months later, and the other a flap operation, but not until ten years and a half after the extraction. In the same, Mr. Brailey[5] reported a cyst of the iris occurring in a case operated on by Mr. Hutchinson for cataract. A year after the extraction a large cyst filled the outer half of the aqueous chamber. There was ciliary congestion and diminished tension. The eye was excised.

Gonella[6] reports a case of cysts of the iris in an eye which had been operated on eight years before for cataract, by the v. Graefe method. A cyst filled the temporal half of the anterior chamber, and a second very small one was found on the pupillary margin. There was increased intraocular tension. Two operations were done, but vision was very little benefited.

Story[7] reports a case of cyst following a cataract operation where the removal of the tumor was followed by a poor result.

Hirschberg[8] gives an interesting description of an operation for a cyst which followed an iridectomy for glaucoma.

A successful case of cataract extraction[9] was followed nine months later by iridocyclitis and loss of vision. A description of the cystic formation in the anterior chamber is given.

Cross and Collins[10] report two cases of iris cyst following cataract extractions. In the first the eye was lost seven months after the operation, by acute glaucoma. A year later the eye was enucleated and the cyst found in the interior chamber. In the second case a dense secondary membrane formed and was discised seven months later. Sharp reaction resulted and the cornea became opaque and the degeneration of the eye progressed so that enucleation was done two years after the first operation. A cyst was found in the anterior chamber.

Mr. Snell (Sheffield) reported a case of cyst in the anterior chamber occurring in a patient on whom he had operated for cataract fourteen years previously.

Wordsworth[11] reported a remarkable case where, after the discission of a lamellar cataract, about three years later there appeared several small globular bodies presenting a pearl-like appearance. Some of them were attached to the edge of the iris, and others to an opaque membrane in the lower portion of the pupilary space, while some were lying free in the anterior chamber.

Cysts of the cornea, although very rare, belong to the same category as cysts of the iris. Mr. E. Treacher Collins[12] reports two cases of epithelial implantation cysts of the cornea, one following a perforating wound with a shot, and the other following a cataract operation. In the latter the eye was enucleated a year after the extraction. The globe was shrunken, the cornea small, the retina completely detached, and the choroid on one side. In the center of the cornea was found a large cyst lined by several layers of epithelial cells. In relation to its formation he says, "in the puncture with the cataract knife some of the epithelial cells from the surface of the cornea have been transplanted into its substance, and have proliferated. As they have increased in numbers the central ones have become pressed upon, and consequently have broken down and liquefied."

Alt[13] reported four cases of cysts in the cornea following perforating wounds. In two cases the cysts were lined with uveal pigment and filled with serous fluid. One had perfectly smooth walls without pigment, and in the fourth there were a number of fine trabeculæ passing from one wall to the other. He thinks the latter was the result of a corneal abscess.

The time at which cysts develop varies very greatly in different cases. In Mr. Hulke's experience, already quoted, it varied from seven months to ten years and a half, these being the extremes. In Snell's case it was fourteen years. An average period would be about two years. In some cases the cyst in an eye which is blind

from an injury is not discovered until it is examined after its excision. These cases are of but little interest as compared with those which develop in the anterior chamber where the transparent cornea permits a clear view of them. It is a matter of great interest to watch the development of these growths from their incipiency. This opportunity is not often accorded the surgeon, as he generally sees the cases after the cysts have developed to considerable size.

The case which I wish to present is as follows: Geo. R., aged 6, was first seen in November, 1879. At that time he had lamellar cataract in each eye, with yellowish-white nuclei surrounded by projecting radii. There was nystagmus and a very high degree of strabismus convergens. The left was not equal to the right and converged continuously. In May, 1880, the left internus was tenotomized and an iridectomy down and inward made in each eye. The visual result was very good and the position of the left eye greatly improved. He was not seen again until 1895, fifteen years after the iridectomies were made. He then had a well-marked milky cataract in each eye. Perception and projection were good in both. There appeared in the bottom of each capsule a deposit which was probably cretaceous. Discission was successfully done on each eye, the operations not being followed by any reaction. R. + 6 D. V. = 0.2; L + 9 D. V. = 0.2. Ordered same for distance and + 12 D. reading.

He was seen again in April, 1897, and reported that for several months his right eye had failed so much that it was then quite useless. As this was the better eye its failure caused him very great inconvenience. A secondary membrane had in the meantime formed in the pupil of the left eye, clouding it considerably. The cyst sprang from the lower and inner angle of the iris. It was rounded in outline and somewhat pyriform in shape. It measured 5 mm. transversely and extended into the anterior chamber so as to obstruct the lower half of the pupil. The inner margin of the cornea adjacent to the tumor was slightly nebulous. The cyst was yellowish in color and semitransparent, having very thin walls. The development of the tumor was probably due to the discission of the soft cataract, and not to the iridectomy which had been made fifteen years previously for visual purposes.

The cyst was removed April 26, and the secondary membrane discised at the same time. The operation was done by making a free incision at the corneoscleral margin, with a Graefe knife. As the knife had necessarily to pass through the base of the cyst, it collapsed and its contents escaped. The cyst was then well drawn out and with it a limb of the iris, and cut off. The secondary membrane was then discised with a cystotome. A few days later the secondary membrane in the left eye was discised. The vision of the right eye was quite good for some time after the operation, but gradually it has grown worse and he now depends on the left eye. Judging from what he writes there is probably liquefaction of the vitreous and a slow degenerative process going on.

Cysts of the iris are of two varieties, the serous or transparent and the epidermoid. The latter are called pearl cysts and are filled with epithelium cells which have undergone fatty degeneration. The origin of these cysts is now well established, both by observation and experiment. Years ago Rothmund advanced the theory that they were caused by particles of epithelium of the conjunctiva or skin, which were carried into the substance of the iris by some penetrating substance, as a foreign body or a knife, and there proliferated and became the starting point of the cyst. This theory has been proven many times by experiments on rabbits' eyes, where particles of epithelium were implanted in the iris. Several cases have been reported where ciliæ have been driven into the anterior chamber and where later on cysts have developed. Rothmund[14], in 1872, reported three such cases.

On this point Fuchs says that a cilium with its follicle carried into the anterior chamber may be the focus or nidus of development. The epithelium finds favorable conditions for its nutrition and keeps on growing. "Afterward a cavity forms inside of it through the accumulation of fluid which presses the epithelial cells apart and converts them into a coating for the newly formed cyst cavity."

Berry states, in the second edition of his work on the eye, that a serous cyst is a kind of cystoid degeneration of the iris leading to the formation of a diverticulum at the angle of the chamber. Noyes says that cysts of the iris are the effect of sacculation in consequence of a wound or operation, or they result from the proliferation of cells introduced into the anterior chamber. De-Wecker says that cysts may arise from posterior synechiæ, and Alt that the same may result from anterior synechiæ.

The visual and mechanical effects of cysts come on slowly but surely. As the cyst grows it steadily covers the pupillary area, as in the case I have reported, and gradually impairs vision. But the mechanical effects are far more important and dangerous. As the cyst enlarges it presses on the cornea and lens as well, if it is still *in situ*. From the former may develop opacity, and from the latter such a pressure as to displace it. Distortion of the pupil and atrophy of the iris surely follow. More than this, iritis, iridocyclitis and secondary glaucoma of the injured eye and even sympathetic ophthalmitis of the fellow eye may ensue. Hence the early and radical extirpation of the cyst becomes urgently necessary. Simple puncture will not suffice as the cyst will soon form again. Its thorough removal by a linear incision at the corneoscleral margin is required. The incision should be liberal enough to allow the operator to introduce suitable forceps or scissor-knife so as to remove the pedicle or a portion of the iris from which the growth has developed.

Each case is a law to itself, and will sometimes tax the ingenuity of the operator to devise a sure method of removal. In the great majority of cases the cyst is ruptured in its removal and, its wall being very thin, it is quite difficult to seize and draw it out entirely. If a piece of iris can be also drawn out, it makes the danger of return less probable.

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DISCUSSION.

DR. C. F. CLARK, Columbus, Ohio—The experience of anyone must limit him to a small number of cysts of the iris. In fifteen years I have seen but two cases, one congenital and one probably traumatic, although the history was obscure. The

congenital case I reported in Edinburgh in 1894, and there was only one man at that meeting who had had a case at all similar to it. It was a cyst of slow growth and the child was quite young when I removed it. The other case was one that brings out the single point that I wish to mention now, that is in reference to the treatment: The patient had had trouble for three or four years and on examination I found a large cyst with two lobes projecting into the anterior chamber. I suggested removal and believed nothing short of a radical operation would suffice, as I had been taught and as the books tell us. The patient was not ready for this, however, and I ventured to puncture. I made the puncture and withdrew an amber-colored fluid. I kept trace of her for several years and there was no recurrence. This cyst may have been unusual in its character and the puncture may have been a questionable procedure, but I want to put it on record that at times and in some cases puncture may be sufficient.

DR. D. S. REYNOLDS, Louisville, Ky.—I recall three cases of cyst in the iris. One occurred in a young man of 22, who accidentally punctured the eye with the bit of a spiral auger. On removal of this cyst it was found to be filled with sebaceous matter. A second case presented the appearance of a sarcomatous growth of the iris, but turned out to be a cysticercus which had emerged from the posterior surface of the iris. The third had all the appearances of a serous cyst. I punctured it, but the yellowish fluid that exuded kindled an irritative condition that was followed by panophthalmitis, and within a few weeks the eye had to be enucleated.

CASE IN WHICH BOTH EYES WERE LOST FROM CHOROIDAL HEMORRHAGE SUBSEQUENT TO EXTRACTION OF SENILE CATARACT.*

BY ALBERT RUFUS BAKER, M.D.

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CLEVELAND, OHIO.

Mrs. Y., aged 63 years, with good general health, presented mature senile cataract of both eyes, but good perception and projection in all parts of the fields. The pupils were reacting actively to light and accommodation, tension normal, and she was in every way an apparently favorable case for extraction.

She entered the Cleveland General Hospital, Dec. 5, 1894, and on the following day the right lens was extracted without iridectomy. It was in every sense a smooth operation, excepting that one or two drops of rather fluid vitreous followed the lens. There was a round pupil, centrally located, no hemorrhage into the anterior chamber, and everything was in such good condition that, notwithstanding a slight loss of vitreous, I gave a favorable prognosis. The dressings were removed on the third, fourth and fifth days, and everything found progressing favorably; corneal wound united, anterior chamber re-established, no ciliary congestion; fingers counted readily.

On my visit on the morning of the sixth day, the patient said she injured her eye with her hand during the night, and had passed a sleepless night, with considerable pain. I found the anterior chamber filled with blood, and used hot applications and atropin to relieve the pain, but an iridocyclitis gradually developed with occluded pupil and loss of all perception of light. The eye became soft and after several months I enucleated it to relieve the pain.

Unfortunately an officious student opened the eye, much to my chagrin, and spoiled the specimen for careful study. The retina was detached and a disorganized blood clot filled the vitreous chamber, so that I have no hesitation in saying that at the time of the hemorrhage into the anterior chamber, there was also choroidal hemorrhage. Whether the hemorrhage was due to the injury, as the patient thought, or occurred spontaneously, is questionable.

On Dec. 11, 1895, Mrs. Y. returned to the hospital, to have the cataract removed from the left eye. After reviewing the literature of the subject at my command, I decided to make a preliminary iridectomy and extract the lens subsequently. There was no hemorrhage following the iridectomy, no reaction, and five weeks later I made extraction. I never made a smoother, cleaner operation; a perfectly black pupil, no hemorrhage, no escape of vitreous. I directed the orderlies to leave the patient on the table for half an hour before removing to the ward. A trained nurse was by her side all the time. The patient did not talk, laugh or move, but between twenty-five and thirty minutes after the dressings were applied, she screamed with pain. I was called at once and raised her head and gave her a hypodermic of morphin. I endeavored to soothe her without avail, and in a few moments repeated the hypodermic injection. The pain not being relieved, I removed the dressings and found the entire vitreous forced out of the eye. While I was doing this, the ciliary body and retina protruded, as large as the end of my finger, through the gaping corneal wound. It looked as though a person had grasped the eye tightly in the hand and squeezed out all its contents. I suggested immediate enucleation, but it was declined. I reapplied the bandages, and after pursuing a more or less painful course of a few weeks, with little or no suppuration, a shrunken globe about the size of a hazelnut remained.

I made a diagnosis of choroidal hemorrhage, and yet at no time was there any hemorrhage seen; the dressings were at no time bloodstained. The fellow eye having been lost from choroidal hemorrhage, and all precautions that suggested themselves having been taken to prevent its occurrence, and having talked the matter over with the patient and her friends before the second operation, they took the matter more philosophically than I. It was several years before I could speak of the case with any degree of composure. Since the time of that operation the literature of the subject has become quite voluminous, and judging by the number of cases reported, if there is any truth in the old saw that "Misery loves company" I should be quite joyful. These cases must, however, be of quite infrequent occurrence. This is the only one I have had in between four and five hundred extractions.

It is not an unusual occurrence to have a slight hemorrhage into the anterior chamber from the iris, during the operation. I have always looked on it as an annoying incident, but never considered it as in any way interfering with the securing of good vision. It has several times occurred to have a hemorrhage into the anterior chamber several days after cataract extraction, presumably the result of an injury, sometimes leading to sharp reaction and iritis, and in two or three cases, partial, if not complete occlusion of pupil, but secondary operations have usually secured a fairly useful eye. In some cases the patients have not acknowledged an injury, but my experience has led me to think that traumatism has been received either consciously or unconsciously.

I have in mind the case of Mr. P. S., an ideal old Irishman, the anterior chamber of whose eye, on the morning of the sixth day after extraction, I found filled with blood. I insisted that he must have injured it, but

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he said he did not. The case pursued a very tedious course and it was only after several secondary operations that I secured a fairly useful eye. The patient disputed the amount of the bill, and it was only after several years and threatened litigation that I collected the full amount, and then the patient confessed that he got out of bed unknown to the nurse and ran against the door, injuring the eye.

I have sometimes thought that hemorrhage into the anterior chamber occurred more frequently since we have been using cocain, and possibly that its use was a predisposing cause of choroidal hemorrhage, but a more careful reference to the literature preceding the use of cocain inclines me to think that the latter was more frequent then than now, especially during the period of chloroform narcosis, when cases were not infrequently reported as lost from hemorrhage, the result of vomiting. Several writers have said that we should decline to operate on the second eye when one has been lost from choroidal hemorrhage. I should very much prefer that the other fellow should do it, but it seems like a cowardly position to hold. The use of ergot and other drugs has been suggested previous to the operation, but does not promise much, if anything. The most promising way out of the dilemma is that practiced by Valude of Paris. When I suggested the title of this paper, I had the same thought in my mind; indeed, the purpose of this paper was to suggest the method of reclination, as practiced by our forefathers. I greatly regret that the thought did not come to me earlier, and it seems strange to me now that it did not, as I had my patient under observation for a year, fearing the result of the operation all the time. But as a matter of fact it did not occur to me until many months after I had lost the second eye, but as our eminent French confrère has already put the suggestion in practice, before the opportunity presented for me to do so—and I can assure you I am glad it has not—I will append a brief abstract of his case.

He adopted the following procedure, recommended by Gensoul of Lyons, and modified by Desmarres, but originally derived from the Arabic and Egyptian physicians of olden times. He made a small incision in the sclerotic a few mms. outside the limbus, with a fine knife, and then introduced through the aperture thus made a small curette, with which he depressed the lens without risk of rupturing the capsule. The operation was easy and painless, the lens was held down in its new position for a few seconds with the instrument, and on withdrawal of the curette it showed no tendency to leave its resting place. The pupil looked quite black. After operation there never was a trace of pain, nor was there any vomiting such as some of the older surgeons used to describe. The patient left the hospital in about eight days, having V. with + 12D. = 1/3, with +15 D. She could read the newspaper; the pupil was black, there was slight tremulousness of the iris. With the ophthalmoscope could be seen a distinct cupping of the disc which was somewhat pallid, and some tortuosity of the vessels. This condition of a chronic simple glaucoma without elevation of tension, may very probably have been the cause of the inopportune hemorrhage in the other eye. Valude saw the patient again six weeks after the operation, when the eye was still well and quiet. Although one swallow does not make a summer, still Valude's success encourages one to hope that in a case such as his, where for some reason extraction can not be done, our resources are not exhausted, and reclination may give a good result which we may trust will be permanent. The recital of this eminently satisfactory case may serve to cheer a surgeon greatly when face to face with a very depressing state of affairs, and to encourage the adoption of a bold but wise endeavor.[1]

I also append a short bibliography of the recent literature of the subject supplementing that of Spalding in the *Archives of Ophthalmology*, Vol. xxv, No. 1.

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DISCUSSION.

DR. C. W. HAWLEY, Chicago—I would like to offer a suggestion in regard to the operation on the second eye. In a case where the first eye is lost by internal hemorrhage, it is barely possible that the old-fashioned operation done by the traveling quack might be a source of relief. I have in mind an instance where I operated on a woman, whose mother had been operated on years before. A quack had introduced a needle of some kind and simply pushed the cataract into some other portion of the eye, and the mother received almost as good vision as the daughter had after extraction. Is it not possible that this might be done in cases where there is hemorrhage to be expected?

The expulsion of the contents from the eye reminds me of a case I had last fall. I operated on an old man, for simple senile cataract, and after having made an incision with the cystotome he contracted the muscles of the eye and face until he was blue, and there was no relief of the spasm until the entire contents of the ball was expelled.

DR. J. L. THOMPSON, Indianapolis, Ind.—Just to cheer the Doctor up a bit I will say that about twenty-five years ago I had a patient, a woman, of about 300 pounds, with a very nice-looking eye which I thought I could operate on very satisfactorily. I made as pretty an extraction as ever I did in my life. About three hours later I was informed that she was suffering very much, and I had almost the experience described by Dr. Baker after his last operation. Again, ten years ago, I had just such another case, and I can sympathize with the Doctor for that awful sinking feeling in his stomach, for I know that such a case takes away one's appetite for days.

DR. W. H. DUDLEY, Easton, Pa.—I would like to report an eye lost by intraocular hemorrhage a few years ago. The patient was a female aged about 60, with a mature senile cataract, functional examination and tension normal. A simple extraction was performed under cocain, without accident. A few moments later, while reposing the iris, the patient pressed the lids somewhat, when a large amount of vitreous escaped and the patient complained of great pain, which in spite of anodynes persisted for over twenty-four hours. A shrunken eyeball resulted and was enucleated a year afterward, and when divided it showed that a hemorrhage had occurred from the choroid, anteriorly, near the ciliary body. Soon after this I extracted a cataract from the other eye, and in doing so took the precaution to give her, a half hour beforehand, a dose of ergot, and shortly before operating a hypodermic of morphia. I operated in the bed in which she was to remain and she was not allowed

to move for twenty-four hours. A good result was obtained.

DR. S. D. RISLEY, Philadelphia—I arise to suggest the importance of vascular disease as an etiologic factor in these cases of intraocular hemorrhage following operations which open the eyeball. I have published the report of one case in which this unfortunate accident occurred; a Morgagnian cataract in an aged woman with extensive atheroma and marked disturbance of the circulation. Immediately following the corneal section, the lens was forcibly extruded and followed at once by profuse loss of fluid vitreous. In a moment a stream of bright red blood issued from the wound, so profuse as to saturate the pillow. The patient suffered intensely from occipital pain. It is probable that the diseased intraocular blood-vessels ruptured when the support of the normal ocular tension was removed by the corneal section. A few months later she died suddenly from intracranial apoplexy. The presence of general atheroma is always an added source of danger in operations which lower the ocular tension suddenly.

DR. D. S. REYNOLDS, Louisville, Ky.—I want to add one more case: a man of 48, in apparently good health, came to me with immature cataract in both eyes. I did a preliminary iridectomy on the eye which had the most mature cataract, for the reason that there was plus tension in both eyes. Less than a half hour after the iridectomy was done I was sent for, and found him in great pain. The dressings were saturated with blood, the side of his face covered and the bedclothing stained. Examination showed that a stream of blood was spurting out of the wound in regular pulsations. I enucleated the eye the next day, making an engagement to operate on the other eye when it became impossible to count fingers. Thirty days afterward he fell from his horse, dead from apoplexy.

SOME OCULAR MANIFESTATIONS OF ARTERIOSCLEROSIS.*

BY CHARLES H. BEARD, M.D.
CHICAGO.

I have selected from private practice five cases which fairly represent phases of ocular affection occurring in conjunction with degenerative changes in the circulatory system. I would state by way of perface that each one of the five individuals in question enjoyed a degree of good health and activity, and was characterized by an excellence of physique far beyond the average for their age, none having been under 55, and in every instance any evidence of other ailment save that of the circulatory system was practically lacking. Signs of morbid changes in the walls of the blood-vessels, however, with the attendant modifications in the size and action of the heart, were uniformly present and palpable. It may be stated, moreover, that these patients, to whom the drawings refer, have since been under observation for periods ranging in extent from about seven months to about three years, coming down to the present; that none has suffered any sort of damage to the fellow eye—in other words, the abnormality has been strictly monolateral, and so far as recent reports indicate, the defective eye has, in every case, become quiet, though in only one has the vision in the worse eye improved, viz., Case 3, from 20/200 to 20/50+.

CASE 1.—The case of Mrs. Z., aged 64, already reported,[1] is again cited because of the striking ophthalmoscopic picture herewith exhibited. I think I have never seen another fundus wherein the sinuosity of the veins was so extreme.

CASE 2.—Mrs. W., aged 55, a Jewess, was always well excepting a facial paralysis fifteen years before. She came for examination of the eyes and to be fitted with glasses, Jan. 14, 1898.

R. V.=20/70—; 20/20 with + 2 sph.

L. V. = 20/200; 20/40—with + 2 cyl. ax 75°.

The ophthalmoscope revealed change in the retinal vessels, suggestive of atheroma and arteriosclerosis, together with a few minute orange dots in the choroids. I ordered glasses as above September 20. She returned because for a day or two she had been unable to see with the right eye.

R. V. = 20/200, uncertainly.

L. V. = 20/40; with glasses as above.

The ophthalmoscope showed embolus or thrombosis of the right lower temporal artery just where it gives off the first good-sized branch, terminating in the lower macular region, with hemorrhages and white exudates over the affected area. Under potassium iodid, massage, cathartics, etc., these soon began to disappear, and vision had risen to 20/70, when, about November 25, fresh hemorrhages ensued at the same site. I advised the patient to go to Hot Springs, Ark., for the baths and massage, and to continue the iodid in moderate doses.

I next saw her on March 9, 1899, she having in the meantime been to Hot Springs, where she remained one month. The retinal hemorrhages and exudations were all gone, only degenerative changes showing where they had been.

R. V. = 20/50.

Her last visit was May 22, when the second sketch[2] was made. The right eye was now: V. = 20/50+. The first sketch was made at the time of the second hemorrhage, about November 25. The field herewith presented was taken Oct. 12, 1898.

CASE 3.—Martin G., aged 63, a German, bookkeeper, came to be fitted with glasses, May 11, 1898. Thirty-six years ago he had syphilis, and was treated at his home in Bavaria, by an army surgeon, and soon cured, having been in good health ever since. Two years ago he had partial loss of function, beginning in the thumb and rapidly extending to the whole arm. This soon disappeared. Occasionally he has a prickling arise in the tongue and then in the right side of the nose and lips.

R. V.=10/200; 20/30—with+4s⊃+ 105c. ax. 50°.

L. V. = 10/200; 20/40 with —5 (antimetropia).

He had been wearing for his work, O. D. +2s, O. S.—4, and hence doing it all with the left eye, as the right eye required the additional of +3D for near vision The ophthalmoscope showed great meandering of the retinal vessels, and plentiful changes in their walls, much more pronounced in the left—myopic—eye.

I ordered spectacles as above, with +3D added, in segments, for near vision. After wearing the glasses for twelve days he came back to say that he had suddenly lost the sight of the left—myopic—eye. The ophthalmoscope revealed a tremendous neuroretinitis of that eye, with innumerable hemorrhages, etc. After the lapse of three weeks more, iridochoroiditis supervened in this eye, then secondary glaucoma on June 21, as a result of the mydriatic, perhaps. This was treated with eserin. By July 5 the eye had become quiet and the T normal. V.=perception of light. Media clear—fundus essentially unchanged. About this time the patient was persuaded by his friends to try osteopathy. January 6, 1899, I dropped him a line to call, and, after a few days, he did. The eyes were then quiet: T of left normal, but its lens had become opaque.

CASE 4.—Mrs. C., aged 67, came for consultation and examination Nov. 1, 1898. Nearly two years previously she had run against a towel-rack, the rounded end of which struck just above the right eyebrow. The blow was not severe enough to cause any contusion nor ecchymosis, but from that time she was conscious of some

*Presented to the Section on Ophthalmology, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

[1] Ophthal. Record (1st Chicago number).

[2] Illustrations omitted by author's request.

disturbance of vision in that eye, and had constant inclination to brush something away, although it was not until nearly a year after this accident that, in rubbing the left eye, she discovered that the sight of the right had failed. R. V. = 20/200; 20/100 with + 2.

L. V. = 20/200; 20/20 with + 2.25.

The lower field of the left was almost lacking. The ophthalmoscopic examination disclosed in the right fundus the conditions here depicted: Up and out from the optic disc along larger vessel one could see what must have been the vortex, or rallying point, as it were, of the whole trouble, and one could be allowed to assume that here, as a result of the concussion, a retinal vessel was broken. The right fundus was normal, excepting that the appearances of the retinal vessels told of degeneration of their walls, being very similar to those shown in the lower half of the drawing.

CASE 5.—The cause of the ocular disturbance was extraocular in this case: Mrs. H., aged 63. Two weeks before coming to me she went into a dark room and fell over a trunk, alighting on her hands, and not striking her head, and was considerably shaken up. Soon after she seemed to experience confusion in looking at objects, and at the end of a week observed that she saw double. She had been suffering considerable pain in and around the right eye, much worse at night. I found complete paralysis of the right abducens; no other paralysis; right exophthalmus, engorgement of temporal conjunctival veins, and edema of right lower lid.

R. V. = 20/200; 20/20— with + 4.

L. V. = 20/200; 20/20 with + 4.

The ophthalmoscope showed right choked disc, left sinuous and irregular vessels, minute choroidal spots of bright orange color, situated chiefly outward. I ordered the above glasses for constant wear, potassium iodid in augmenting doses and faradism and massage to be applied to and about the right eye. By the middle of the following December, the eye had made complete recovery, not a trace of the recent disturbances being left. Here the probable cause was hemorrhage externally in the orbit precipitated by the fall.

The object sought in calling attention to these cases is to emphasize certain facts with regard to the eyes of elderly individuals distinguished by well-marked symptoms of atheroma and arteriosclerosis—facts already known, it is true, but insufficiently studied and weighed, so it would seem, by the average practitioner of ophthalmology. The signs of advanced disease of the general circulatory system are comparatively easy of recognition, and the ophthalmoscope affords singular facility for the detection of analogous conditions within the eye. With it we are brought in closer touch with the status of the circulatory apparatus than is possible by any other means in any other part of the body. And it is in the retina, which is the part most accessible to this instrument, that a relatively very slight accident to the vascular machine can do more harm than could obtain elsewhere in the entire anatomy. Aside from the great delicacy of its construction, and the importance of its function, it is peculiar in that its vessels are so spread out and isolated, so nearly helpless in the matter of effecting anastomoses for the sake of surmounting such obstacles, and which are readily established almost everywhere else in the physical economy. For these reasons it were well and wise to encourage not only universal familiarity with all those things which are known to be tokens of a morbid state of the vascular system, but also to inaugurate widespread investigation with the view of finding new ones.

Did time permit, it would be a pleasure to review the literature of this theme, and to describe the diverse features by which the presence of the malady is revealed. Among the oculists who have done good work along this line are Goldzieher, Wegenmann, Sattler and Rhadlmann in Germany; Gunn and Williamson in Great Britain, and Hasket Derby and Harry Friedenwald, in America. Thorough acquaintance with the teachings relative to this subject, together with the demonstrations furnished by our various clientéles, might enable us as specialists to prevent many a grave disaster, not alone where the precious organ of vision, but where life itself, is concerned. With equal felicity we might, by timely counsel, avert an expulsive hemorrhage after the extraction of a cataract, a seizure of acute glaucoma, or a fatal attack of cerebral apoplexy. The field of possibilities here offered is, indeed, a rich one—possibilities in the way of diagnosis, of prognosis and prophylaxis, in our dealings with victims of the disorders under discussion.

A few words as to their general conduct in the avoidance of all unnecessary strains, shocks and jars, a few hints as to their diet and other habits of body, supplemented by the judicious administration of those selections from the materia medica which will serve to further our ends, and we may do wonders. So precarious is their state that it is enough to make one hesitate before handling them according to one's accustomed routine of practice, and to deplore the fact that greater light for his path, in the management of them, is not available. As above stated, I suspected that the use of atropin in Case 3 resulted in secondary glaucoma, and I have even wondered if the separate correction of the refractive errors in Cases 2 and 3, thus inducing an unwonted exertion on the part of these anisometropic eyes, may not have been a factor in the precipitation of the serious retinal lesions.

DISCUSSION.

DR. G. E. DE SCHWEINITZ, Philadelphia, presented drawings to supplement those exhibited by the Doctor, prepared to illustrate some of the points made. These were drawn from patients having arteriosclerosis, but who were unconscious of their serious condition.

DR. C. A. VEASEY, Philadelphia—The ocular manifestations of this disease have been so thoroughly considered to-day that little remains to be said, except in the way of corroboration. Quite recently I have had the opportunity to study an unusually well-marked case, the patient being a man 32 years of age. Many of the patients are elderly people in whom we might expect such changes, but quite frequently the conditions are also seen in those of less mature age. A drawing made of my case, and here presented, shows exceedingly well all the changes so ably pointed out. The patient simply complained of being unable to see well, but the ophthalmoscopic examination showed marked hemorrhages throughout the fundus, two or three spots of atrophy (the sites of former hemorrhages), and at the points where the arteries crossed the veins the latter could seldom be seen on account of the thickness of the arterial coats. Beyond these points the veins were decidedly tortuous, and most of the hemorrhages had occurred in the neighborhood of these tortuous veins. In one of the superior veins the condition of constriction to which attention was called in a recent paper by Dr. Harry Friedenwald is especially well marked; when it is crossed by the artery its size is reduced to that of a mere thread, but afterward it regains its normal caliber.

I have also had the opportunity of studying, within the past two years, a case of marked arteriosclerosis of the retinal vessels in a man of 60, without any general symptoms of the disease. In the first case to which I have referred the urine and blood examinations were normal, but the vessels rolled under the fingers like whip-cords, and there was a double heart murmur; in the last case there were no symptoms other than those seen in the eye.

It is my belief that in all of these cases there should be a very very grave prognosis.

THE VEGETABLE NEUROTICS.*

BY GEORGE FRANK BUTLER, PH.G., M.D.

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Dr. John Harley, in the Gulstonian lectures of three decades ago, discussed four vegetable neurotics which have occupied an important place in materia medica for more than twenty centuries. These drugs were conium, opium, belladonna, and hyoscyamus. To these might justly be added aconite and mandragora. These remedies have maintained practically their present positions since the renaissance of medicine. Aconite was very early employed by the monks in the treatment of fever, since under the canon law of the church they were forbidden to shed blood unless by special dispensation. Consequently, around the ruins of the old monasteries are to be found wild plants of aconite, originally employed for medicine, and not for poison, as is usually, but uncharitably, believed.

Of these vegetable neurotics, the one most abused has undoubtedly been opium, its chief alkaloid having produced more misery, though it has relieved more suffering, than any other agent in the materia medica. It is not, however, with the therapeutic employment of morphin, but with one of the results of its abuse that I propose to deal in the present paper.

The close resemblance between morphin and certain products of nerve tissue change certainly tend to indicate that it is more easily transported by the blood than many other remedies.

It is not astonishing, therefore, to find, as Bureau and Ringer have shown, that it passes readily from the maternal circulation through the placenta, into the fetal circulation. About thirty years ago this fact was demonstrated clinically by Calkins, who found that the children of mothers addicted to the use of opium died of marasmus, unless nursed by the mother, or given opium when fed from the bottle. His observations were later corroborated by Erlenmeyer, F. H. Hubbard of New York, Kiernan and F. B. Earle of Chicago, Madison of Brooklyn, C. H. Hughes of St. Louis, P. C. Layne of Cincinnati, and others.

This congenital opium habit adds one more problem to obstetrics, since it involves both the treatment of the opium-using mother during pregnancy, and the infant after delivery. It requires considerable delicate acumen to guide a mother and child between the Scylla resulting from opium deprivation, and the Charybdis consequent to opium using. There is very little doubt that maternal use of this drug during pregnancy produces, as Talbot of Chicago has shown, degenerate children, but it is equally certain that the evils of deprivation are fully as great.

The management of the infantile opium habit, when congenital, is, however, much less difficult than that of the acquired habit during infancy through the use of soothing syrups, etc. The use, or misuse, of soothing syrup for infants is much older than generally supposed. Crabbe, in "The Borough," sung of it a century ago.

An artificial alkaloid of opium, apomorphia, has recently become very prominent in therapeutics. Its value as an emetic and a diaphoretic is so well established as to need no further reference.

Its efficacy in certain nervous conditions, however, resulting from its sedative action through emesis has received too little attention. There are excellent reasons for believing that, like tartar emetic, it may exert a sedative influence without producing vomiting. It was a common practice among the English laboring class, about four decades ago, to quiet the excitement produced by alcohol and the resultant motor restlessness by the administration of tartar emetic. Frequently the wife purchased this drug on Saturday night, and mixed it with the last dose of liquor taken by her husband on Sunday. The man, in consequence, usually arose on Monday in very fair condition to resume the week's labor, and better enabled to refrain from the use of alcohol during the week. Undoubtedly in the majority of cases this somewhat heroic treatment resulted beneficially, the untoward effect which rarely occurred being due probably to personal idiosyncrasies or to unknown pathologic defect. It is not surprising, therefore, that this method of treating alcoholism should be adopted in certain so-called cures for inebriety, apomorphia, however, being substituted for tartar emetic, because less dangerous. Apomorphia has been given, not only to secure sedation, but to produce a moral effect as well. The action of this drug, tartar emetic and ipecacuanha suggest a study of the relations of the emetics to sedation, especially when we remember the part which the gastro-intestinal canal plays in the production of toxins, leucomains, etc., underlying many conditions of motor restlessness.

Because of its use as a state poison, conium maculatum has been known in toxicology for more than twenty centuries. The description of the death of Socrates gives a very clear picture of its physiologic action.

The variation in the quality of the drug has occasioned much controversy as to its efficacy as a remedial agent, some physicians having advantageously employed it, while others have derived no benefit from its use. It has periodically dropped into disuse, only to as suddenly revive and become the subject of a therapeutic "boom." As the drug can not be copyrighted, it is obvious that the variable employment of the remedy is due to accidental features in the drug itself, rather than to a personal element of error arising from the mental makeup of the individual physician.

Storck, the greatest therapeutist of the eighteenth century, found conium of decided value, and his results were strongly corroborated by the Italian therapeutist, Viventius, who published an extended monograph on the subject in 1777.

Like many other organic drugs, conium has suffered in reputation from the unfounded belief that plants always afford like therapeutic principles, irrespective of the soil on which they are grown. As the culture-medium determines pathogenic or toxic activity, so does the soil in which a plant is grown influence its medicinal quality. Conium, for instance, grown in Scotland, or cultivated too carefully, is therapeutically inert. Another truth illustrated by this drug is that frequently the volatility of the ingredients of a preparation affects its therapeutic activity. This influence can not be restored entirely by standardization, since the volatile alkaloid when removed seems to be changed in composition, at least so far as regards its medicinal virtues.

Conium in the form of a good fluid extract, having the characteristic mouse-like odor, is almost an ideal sedative for motor restlessness, since it leaves the brain clear, and does not disturb the heart. It is not surprising, therefore, that the remedy is well borne by children. It not only acts as a sedative, but exerts an

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alterative influence, an action which is rather exceptional with the class of remedies to which it belongs. To this last-named property is probably due the influence which it in part exerts in controlling the untoward effects of the bromids in epilepsy, an action which was first noticed by Dr. Harriet Alexander. The pathologic state of acute mania, and similar conditions occurring in paretic dementia, and other compound psychoses furnish excellent indications for conium. In these cases it should be given in commencing doses of 15 minims, and is usually followed by prompt results. While it is not, strictly speaking, a hypnotic, it produces rest and sleep, by allaying the motor restlessness which prevents slumber. For this reason it is an excellent adjuvant to sulphonal, which, unless so given in divided doses as to secure a cumulative effect, produces on the day subsequent to its administration, stupor and urine alterations of an objectionable type. Properly used, sulphonal is a valuable hypnotic, since, with proper management, the sleep habit can be produced by the gradual reduction of the doses.

For reasons already given, it is evident that conium is peculiarly well adapted to correct the untoward effects of sulphonal. A good method of administering the two remedies in combination is as follows: To 15 minims of fluid extract of conium, add 15 grains of sulphonal. Allow the alcohol to evaporate spontaneously. Add powdered licorice, if necessary, to make a mass which should be dispensed in three capsules, and administered at 6, 8 and 10 p.m. The amount prescribed should be gradually reduced. As one dose of these capsules will often secure sleep for two nights, it is advisable to postpone the administration of the remedy until after 10 o'clock on the second night.

Owing to its sedative action on the motor mechanism, conium is useful in all spasmodic conditions. It has been found beneficial in spasmodic asthma and whooping cough, applied locally in the form of a lanolin ointment. Shoemaker recommends conium ointment in neuralgic conditions, and it has been found useful in dysmenorrhea and menorrhalgia.

Lanolin is the best ointment vehicle, since the remedy is intended to be absorbed and petrolatum compounds hinder absorption. A desirable combination for this purpose is half a dram of a good fluid extract of conium thoroughly incorporated with two ounces of lanolin. This ointment will not only prove efficacious in the conditions already named, but is an excellent local remedy in the treatment of anal pruritus.

Conium and hyoscyamus often supplement each other. Like opium, hyoscyamus has, as Harley remarks, "a latent power to provoke insomnia and restlessness. Conium and hyoscyamus prolong, and, to some extent, intensify each other's action. The akinesiant power of conium predisposes to the hypnotic action of hyoscyamus, while the general sedative influence of the latter drug assists the action of the former."

In some cases, therefore, the fluid extract of hyoscyamus is an excellent addition to the hypnotic combination with sulphonal already cited. The fluid extract of hyoscyamus should be given in the same doses as that of conium. What is true of the combined action of these two drugs is true of a combination of conium and belladonna.

Hyoscyamus is nearly as old a therapeutic favorite as conium. The drug is eliminated almost wholly by the kidneys, having to some extent an alterative tendency. In moderate doses it decreases the irritability of the heart, and serves to produce a state of rest of mind and body.

According to Harley, whose results are supported by later observers, the drug is of great value in the following conditions:

As a general cardiac sedative in the functional disturbance arising from emotion, the subcutaneous use of 1-48 grain of hyoscyamin sulphate exercises a speedy and beneficial influence.

In cardiac and pulmonary asthma it is an appropriate remedy, and when used subcutaneously will often bring immediate relief.

It is a powerful anodyne, but in the affections of the nerves of common sensation it possesses no advantage over atropia; on the other hand, it is more efficient than belladonna in neuralgic affections of the internal viscera, especially of the genito-urinary organs. Administered in any way, the drug is an invaluable remedy in renal affections dependent on the oxalic or gouty diathesis.

In acute and chronic nephritis, hyoscyamus may sometimes be substituted with advantage for belladonna.

In spasmodic affections of the uterus, bladder, and urethra, the antispasmodic and anodyne effects of the remedy are very decided.

The enuresis of young persons is speedily ameliorated and ultimately often removed by the judicious use of this plant. The drug is contraindicated in elderly people.

So eminent an authority as Kiernan claims that hyoscyamus, conium, chloral hydrate, and digitalis form an advantageous sedative mixture in conditions of excitement, whether of the maniacal or confusional type, or of epileptic character.

The use of the alkaloids of hyoscyamus in the treatment of insanity has not met with much favor among alienists. The hypodermic administration of them has in many instances produced serious cardiac depression and untoward effects.

Hellebore has subserved medical uses from very remote antiquity, chiefly as a purgative in the treatment of insanity.

Melampus, the son of Amythaon, is said to have cured the daughter of Proetus, King of Argos, of insanity, by purging her with hellebore. He had observed that goats who fed on hellebore were purged, and therefore administered it to the King's daughters, then wandering through the woods under the delusion that they were cows, curing them and receiving the hand of one of them as a reward. The drug came into quite general use, not only as a remedy for insanity, but as a part of the hygienic treatment to which intellectual and physical athletes subjected themselves prior to their trials of strength. Carneades, the Academic, took a course of hellebore treatment, preliminary to his contest with the Stoics.

The custom of using this plant for the same purpose as mineral waters are used to-day, spread from the Greeks to the Romans. Anticyra, famed as producing the best hellebore, was in consequence in great repute as a "watering place."

The chief use to which hellebore was put in medicine was as a drastic purgative, the effect of which was valued in insanity. Of the popular regard in which it was held many illustrations are furnished by the poets. Horace says of his "Happy Madman":

> "He, when his friends, at much expense and pride,
> Had amply purged with hellebore, his brains,
> Came to himself."

Persius, in his fourth satire, after telling Nero that he is incapable of fulfilling his duties as emperor, gives him the following advice:

> "Thou hast not strength such labors to sustain,
> Drink hellebore, my boy, drink deep and purge thy brain."

The peculiar effect noticed in insanity should have indicated that the drug must have a peculiar effect on the heart, yet even the 1890 edition of the "National Dispensatory" says: "Experiments on animals show that however introduced in the system, hellebore and helleborin are violent gastro-intestinal irritants, producing vomiting and purging with copious, bilious evacuations, and killing through exhaustion and convulsion. In man small and repeated doses of hellebore produce liquid alvine evacuations, and increase the menstrual and hemorrhoidal flows. The reputation of the medicine rests chiefly upon the cures attributed to it of mania and melancholia for which it was held in some sort to be specific. Possibly it may have been useful in mental disorders connected with constipation and congestion of the liver and abdominal organs, yet the form of insanity it seems to have benefited most was acute mania." These opinions are expressed despite the researches of Schroff, Helm, Marme, and Scattergood, who showed that the drug exerted a peculiar influence on the heart. From 1879 to 1881 experiments were made showing that the active principle of the drug was a valuable cardiac remedial agent. Dr Starr reported numerous instances in which hellebore hypodermically given acted as a cardiac and respiratory stimulant. Its powers were most marked in cardiac cases in which compensation had not occurred. Lauder Brunton claims that hellebore belongs to a class of cardiac agents which stimulate the heart muscle, "the stimulation being shown by increased energy of contraction, the rate of pulsation remaining the same, or becoming slower." He ranks it among the very highest of cardiac tonics when compensation is sufficient.

Its action on the kidneys is less decided than that of digitalis, and only secondary to its cardiac action. In cardiac neuroses helleborin is of considerable value. Kiernan has found it beneficial in insanity with marked emotional disturbances, accompanied with irregular action of the heart.

Bryonia, another old remedy, was first used in the treatment of epilepsy, hysteria and the furibund types of insanity. It is one of the many remedies supposed to be peculiar to the homeopaths. Storck considered it of value in certain pulmonary conditions, and Potter remarks that it is an efficient remedy in the second stage of serous inflammation, especially in pleurisy, pleuropneumonia, and pericarditis, after aconite has reduced pyrexia, to limit the extent of the effusion and to promote its absorption. For this purpose the drug should be given in small doses, and frequently repeated.

By many physicians bryonia is considered an efficient remedy in acute articular rheumatism to allay the pain and stiffness of the joints. It has been recommended in gastric fever, relapsing fever, congestive and bilious headaches, constipation, cholera infantum, and hepatic congestion. In dropsies of various origin, it acts as a drastic or hydragogue, purgative and diuretic.

From prehistoric times the mandrake *(Mandragora officinalis)* has enjoyed great reputation as a philter. For ages it has been reputed to have magic properties, and was probably referred to by Homer when speaking of the excellent remedy that Hermes gave to Odysseus to counteract the charmed draught administered by Circe: "Black is its roots, and milk white its flower, Moly 'tis named by the gods; for mortals 'tis difficult to dig it, but to celestial all is possible." The black, carrot-like root, which in its lower half frequently parts into two branches, and is beset by small hirsute filaments somewhat resembles the human form, whence the name given it by Pythagoras, andromorphe (manlike in shape). Columella called it the "Planta semihominis," half man plant. Pliny the elder says that "over-indulgence in it will cause death, but in moderation it produces a gentle soporific effect. An infusion of it is taken for snake bite, and is given before operations to dull the sense, for, in some instances, the mere smelling of it will induce sleep." Frontinus says that Marhable, when sent by the Carthaginians to subdue the rebellious Africans, took advantage of the soporific quality of mandrake to vanquish the enemy. "He placed the drug in wine, and feigning a retreat, allowed this to fall into the hands of the foe, who, drinking, fell into deep slumber and were easily captured." Dioscorides, Pliny and later botanists differentiate between male and female plants. Dioscorides calls the male "Morion," and the female "Thridacias."

According to the King James' version of the Bible, Reuben gathered mandrake, and his mother, Leah, with it bribed Rachel, their favorite, to permit her to enjoy Jacob's affections. The old chap-books turned the biblical story of the use of mandrake root as a philter by Leah. It therefore gained repute as a love potion in the period antecedent to the reformation. Drug gatherers and hunters carved the roots into shapes resembling little men and women, and often substituted the root of bryonia. They then placed grass and millet seed into the head part and buried these in moist ground until filaments grew, resembling hair. When dried, these figures were called mandrakes, and were sold at a high price for household deities. In secret they were richly dressed, received a share of each meal, and were bathed in wine on Saturday evenings. Like the "fern seed," they were thought to have the power of conferring invisibility. They made the poor rich, healed all diseases, and made their owner fortunate in love.

The fact that mandragora was one of the surgical anesthetics used by the ancients, and the further fact that it was given in the death wine to certain criminals before torture, so that the provision of the Roman law concerning torture should be humanely carried out, is shown in the interesting studies which B. W. Richardson and others have made of this drug. Like conium, it varies greatly in quality, and the causes of this variation have not as yet been clearly established. The drug has occasionally proved beneficial in cases of insanity where opium, chloral, etc., were contraindicated.

In conclusion, I will state that this paper is intended in the nature of suggestions for further study of the physiologic action of these old remedies. Drugs which have been so favorably known for centuries must possess important properties, and it is to be hoped that some enthusiastic and careful investigators will devote some of the time now given to the coal-tar derivatives to a closer and more scientific study of the older and possibly more valuable medicaments.

SULPHATE OF MAGNESIA.*

BY J. C. CULBERTSON, M.D.
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In the blaze and glory of the heraldry of new remedies and elegant pharmacy, physicians are apt to forget, or at least overlook, some of the old, tried and true preparations. In diverting attention to one of these, no intention is made to cast any slur on, or to detract from, the value and usefulness of others.

Half a century ago Pereira proclaimed that sulphate

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of magnesia was by far the most commonly employed purgative, both by the public and the medical profession, and to state all the cases in which it is administered would be to enumerate nearly the whole catalogue of known diseases.

Following in the same line of observation, Stillé says it is taken incomparably oftener without a physician's advice than with it, referring to it as a certain, safe and mild purgative. Similar observations have been made by all writers on our materia medica and I wish to echo their expressions, and say that I believe sulphate of magnesia is the most useful remedy in the long list of medicinal preparations at our command. In the beginning of any treatment of any disease, to clear the alimentary canal of any irritant matter which may be present, is nearly always called for, and to accomplish this purpose without weakening or complicating the case, there is no one remedy so effective.

Notwithstanding all that has been written and stated so favorably as to the use of this potent remedy, I am inclined to believe that it is not yet fully appreciated for its many virtues. It may seem strange and even presumptuous to say this, in view of all that has been said, and in the face of the fact that sulphate of magnesia has become a universal domestic remedy. However, as used by the people, it is only as a simple, safe purgative that it finds place in everyday family use. In this rank it holds precedence all of the time. As a purgative, its most common administration is in the morning, and in a dose of from half an ounce to an ounce. This may be greatly improved on by giving half a dram to a dram, administered in a pint of water. The mechanical effects of the water are beneficial and aid in establishing increased peristaltic action of the bowels. The remedy, when given in this manner, is peculiarly cooling; it is refrigerative. The same dose given at bedtime rarely acts even as a laxative, but becomes a most excellent diuretic, and also stimulates the skin so as to literally rid the body of accumulations of detritus, wherever it may be located. This is a property possessed in a high degree by sulphate of magnesia. In fact, it may be placed at the very head of the column of diuretics, that are certain, safe and mild in action.

For a cure of dysentery magnesia sulphas comes nearer being a specific than any remedy at our command. In giving it, in this disease, from a dram to an ounce may be used. If large doses are given the discharges are apt to be stopped too abruptly; a dram is better than an ounce and may be repeated every hour or two.

For relief and cure of sick headache, it should be given in half-dram to dram doses every morning, dissolved in a goblet of water. Equally good results or even better may be obtained by administering at bedtime. The goblet or pint of water should be insisted on with every dose. The temperature of the water may be that which is most agreeable to the patient, although I have thought warm water, say 100 degrees, more potent than that at a lower temperature.

In cases of hemorrhoids and all congested conditions of the rectum and other pelvic organs, sulphate of magnesia is almost a specific in a large number of instances; where the patient is troubled with flatulence, an addition of peppermint to the salt solution is very effective in affording relief.

In gynecologic cases, and particularly in peritonitis, sulphate of magnesia is again found at the top of the column of useful remedies. As a cholagogue it is again in the front rank, but it is useless and time-absorbing to refer to special indications for this old standby. However, especial attention is directed to its value as a diuretic when given at night on retiring. The usefulness of so-called small doses in large draughts of water, preferably warm, is insisted on.

One word more. Physicians writing prescriptions for this remedy should always write for sulphate of magnesia, and should absolutely abandon the words "Epsom salts." They should not tell patients to take a specific amount of the drug, but should carefully write prescriptions for it, directing some carminative with it. The days of the familiar cognomen of "Doc" are drawing to a close, so let the dictum go forth that "salts" is a meaningless name applicable to several chemicals, and is not especially significant of sulphate of magnesia; that "Epsom" is the name of a town, and not an appendage of a therapeutic compound. Get rid of the domestic names for this invaluable medicine, and do it at once, by never permitting ourselves to use them, and thus retract what should never have been given to the people.

In this relation I take the liberty of stating that there has been entirely too much giving of our knowledge of remedies to the people, and it actually takes from them much of their specific value. Very many lives have been sacrificed at the altar of dangerous remedies in the hands of the laity, and the people should be educated to believe that disease in every form is a state for pathologic study, and that the simplest as well as the most complex remedies in our materia medica are potent for harm as well as for good when in the hands of those not qualified to administer. There has been entirely too much giving of ourselves away. These things are the secrets of our profession. They are essentially our bread and butter, they are our living, and everything, and should be dignified by our own treatment of them.

I do not presume to tell you much, anything, that is new in regard to an old and useful remedy, but rather make an appeal to take this therapeutic agent out of its present position as a domestic remedy and place it where it justly belongs, in the category of therapeutic agents of the greatest value and respectability.

THE PREPARATION AND ADMINISTRATION OF PILLS, TABLETS AND CAPSULES.*

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Pills, tablets and capsules are undoubtedly the most convenient and agreeable forms of administering medicinal substances. They spare the inconvenience of carrying bottles, spoons or medicine glasses, often almost impossible for business people or travelers. The tasting of bitter and nauseous remedies is avoided. Correct division of doses of insoluble substances can be more easily accomplished than in the liquid form of medication. Although these little bodies are usually made up of the most important and powerful therapeutic agents, they are often prescribed with less care than liquids of the same character.

Pharmaceutically speaking, pills may consist of three parts: 1, the active ingredients; 2, the excipient, and 3, the coating. The active ingredients may be alkaloids and their salts, resins, neutral principles, extracts, the heavy metals and their salts, or the products of coal-tar.

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As they are usually administered with a view of producing either a local or systemic effect in or via the gastro-intestinal canal, it is necessary they should become disintegrated in the stomach or intestines. They must do that regardless of solubility. I will embrace this opportunity to say that the term *soluble* used by some manufacturers to extol the quality of their pills or tablets, is preposterous and misleading. We can speak of soluble pills only when they are prepared from soluble ingredients. We should therefore restrict the term soluble pills or tablets to those that are actually soluble in ordinary solvents, while the term *disintegrable* could be applied to pills and tablets containing insoluble as well as soluble substances.

The disintegrability of pills depends on the nature of all their component parts. Among the ingredients resinous substances disintegrate slowly and with difficulty, while the heavy metals, alkaloids and their salts, and particularly the coal-tar products, disintegrate easily. Among the most common excipients, powdered licorice root, kaolin and most of the aqueous extracts disintegrate without difficulty, while tragacanth, acacia and other highly mucilaginous substances may swell slowly and thus keep the mass cohesive for hours. Excessive firmness of the mass also delays disintegration. Age is another important factor in the disintegrability of pills and tablets. The older they are the firmer and less liable to crumble they become.

As coating material, sugar is superior to gelatin, tolu, mastiche or acacia. Sugar coating is washed away rapidly by fluids, leaving the mass exposed much sooner than is the case when the coating consists of substances insoluble or having a tendency to swell in liquids at the temperature of the stomach.

It is beyond doubt that a catarrhal condition of the alimentary canal and motor insufficiency play an important part in retarding the disintegration of pills. On the other hand, normal gastro-intestinal juices will hasten disintegration by chemical affinity.

Tablets, the more modern addition to the art of pharmacy, are found in two forms: the compressed and the triturates. Compressed tablets are made by subjecting medicinal substances in the form of dry powder to pressure in dies, calculated to contain a definite number of grains or fractions of a grain of the drug alone or diluted with sugar of milk, cane sugar and sometimes starch. Compressed tablets are frequently coated with sugar.

Triturate tablets are usually composed of alkaloids or other powerful substances, sugar of milk or cane sugar, and a sufficient quantity of alcohol to form a mass. They are made in moulds without pressure. Being intended chiefly for hypodermic use, they are left uncoated.

All properly and recently prepared tablets, whether triturate or compressed, except those containing resinous substances, disinegrate far more readily than the average manufactured pills. But tablets as well as pills will become less disintegrable with age, and as a much longer period of time passes from the time pills and tablets are made by the manufacturer until they reach the patient than some physicians would think; we are not surprised to hear occasionally of pills or tablets being vomited or passed by the bowel, almost intact, a number of hours after being swallowed.

The tendency to squeeze everything from strychnin to cod-liver oil into tablets or pills is to be deplored; because medicinal substances have physical laws which the pharmacist can not transgress without diminishing, destroying, or altering some therapeutic virtues.

Capsules are made of gelatin or starch. Those prepared from starch are known in this country as wafers, konseals or cachets. Starch capsules are more suitable for large quantities of dry powder than either gelatin capsules or pills; they break far more readily in the stomach than gelatin capsules, which are liable to swell and float for a considerable length of time before becoming permeable and allowing the contents to fall apart.

Deterioration and substitution can be more readily recognized in wafers or gelatin capsules than in pills or tablets.

The practice of making a mass before placing the ingredients into capsules is not to be recommended. It is seldom necessary, and even when we have soft extracts a sufficient quantity of sugar of milk can be added to convert them into powder.

Pills, tablets and capsules are more or less inferior to liquids and powders as far as rapidity and certainty of action are concerned. Starch capsules are superior to gelatin capsules, and I would suggest for the former the adoption of the Continental name *capsulae amylaceae,* instead of the various copyright and fancy names.

Gelatin capsules are to be preferred only for drugs needing better protection against atmospheric action than can be expected from the porous wafers.

Ready-made pills are to be avoided; their formulas do not always fit our cases, and we are unable to increase or decrease doses, and omit or add ingredients as we do when we prescribe our own formula for each individual case. It is best not to prescribe a larger quantity of pills than will last about two weeks. Clinical results are surely better with fresh than with old pills. Coating as a protective is seldom needed for a short time, but for the purpose of disguising disagreeable drugs, a thin coating may be obtained by shaking the freshly-made pills in a mixture of cinnamon or nutmeg with sugar and talcum.

While only a few retail pharmacists are equipped with the necessary machinery to make compressed tablets on physicians' prescriptions, a large number have the apparatus necessary to make triturate tablets and all druggists are capable of making, extemporaneously, any formula for pills. The claims made by manufacturers that dispensing pharmacists are incapable of making pills accurately are not true. On the contrary, it is reasonable to believe, and experience has convinced me, that pills made in small quantities by a competent dispensing pharmacist are more accurate than those made in large quantities by ignorant girls, even when supervised by a laboratory chemist.

In closing, I will say that if ready-made pills and tablets are to retain the patronage of physicians, it would not be unjust to demand from manufacturers that every bottle of pills or tablets should bear the date on which they were finished, and instructions to exchange for fresh goods after from twelve to fifteen months. This is not intended as a crusade against pill manufacturers, but for the benefit of the physicians and their patients.

ACCORDING to press reports, numerous physicians practicing on the strength of diplomas granted by the Independent Medical College of Chicago, will probably be disqualified to continue their practice in the State of Michigan.

TREATMENT OF NASOPHARYNGEAL ADENOIDS.*

BY LOUIS J. LAUTENBACH, A.M., M.D., PH.D.

Surgeon in Charge of the Philadelphia Eye, Ear, Nose and Throat Institute; Nose and Throat Physician to the Odd Fellows Home.

PHILADELPHIA.

Last year at our Section meeting at Denver, during the discussion on the methods of removal of adenoid growths from the vault of the pharynx, I gave my views on the subject at considerable length, but somehow, although referred to in Dr. Mayer's closing remarks, they were not printed at all in the proceedings of our Section, and yet, since that time, I have learned of a number of operators, who, having heard of the discussion, have modified their methods, following in my footsteps. Especially in consequence of this omission, do I desire to present the matter to you in a more formal manner.

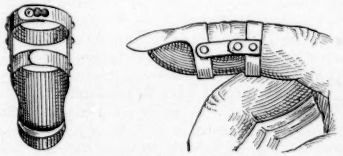
These adenoid growths vary considerably in size and consistency, at times occupying the posterior vault only; again the entire central region or extending laterally into the fossæ of Rosenmüller, and even over the Eustachian orifice—in consistency varying from a very soft, spongy, friable mass, to one fibrous, dense, with firmer resisting outer walls. It must be evident from the location of the growths that the sense of sight can be of little use in the determination of their nature or extent, or in their removal, it being necessary to rely almost exclusively on the sense of touch to give us any accurate knowledge on the subject.

We may examine the nostrils anteriorly by a speculum or posteriorly by the rhinoscopic mirror, but we can not learn much of these growths in this manner with any degree of accuracy, and we always complete our diagnosis by a digital examination, really depending entirely on this examination, which is made by seating the child on a chair, encircling its head with the left arm, and holding it gently but firmly to the left chest while you insert the index finger of the right hand into the mouth back of the soft palate, and thoroughly explore with its tip the entire region. To prevent accidents occurring to the finger, as well as to facilitate the examination, it is necessary, in some way, to protect the first phalanx of this finger, which can be best accomplished by wrapping one or two layers of adhesive plaster about it; over this put two or three turns, doubled, of a two-inch roller bandage, which is made secure by making one turn about the wrist, and as you are about to go around it again, pass the end under the band already in position. This examination is the one on which we accurately rely. It determines the nature of the growth, its location and extent.

You may recall that a year ago I made the statement that in operating on these cases I no longer employ an anesthetic, unless at the special request of the family physician, as the number of deaths from anesthesia in these cases has been so considerable that I do not feel that I can bear the responsibility; the condition not being serious enough to take such risks, and the operation is not sufficiently painful to justify it. Whenever necessary, I explain these thoughts to the parents or the physician, discouraging the incurring of the additional danger. I do not pretend to know why operations in this region seem to predispose to fatal results from anesthesia, but as it is a truth, even though not clearly explainable at present, it must be considered, and no needless risk taken. I apply the same rule to adults, as well as to children.

If you must operate on your patient while he is in a conscious condition, you must be prepared to work more rapidly and as perfectly, or more so, and without the numerous instruments and appliances you might be allowed to have scattered about were he unconscious—especially is this true with children, on whom by far the greater number of such operations are performed. With a child, you must win his confidence and retain it throughout the entire work on the nasopharynx. You can not do this if you have an instrument-shop scattered about you on your tables. In consequence of these facts, I early learned the value of the nail of the exploring finger in removing the growths, and in the few cases where the tissues seem so dense that the perhaps damaged or broken natural finger-nail can not remove them, I now use an artificial nail.

I have not seen a case in which I have not been able to reach every part of the post-pharyngeal space with my index finger which, as you will observe, is not as long as that of many others. I have never seen or rather felt a case of adenoma which has not been entirely removable by my finger-nail, provided the latter was in its normal condition and had not been injured and broken, as is so apt to occur with all of us in our active, busy, daily life.



Lautenbach's Artificial Finger Nail.

I use the artificial finger-nail as a substitute when, for any reason, my finger is sensitive or painful, or the nail has been broken or damaged, or the nail is too short or irregular. It is readily slipped over the terminal and middle phalanges of the index finger, to which it firmly attaches itself by spring rings, the cutting edge being supported in position by the finger-nail fitting into a recess on the inner side of the knife; it is jointed in structure so that the motion of the phalanges is not limited. The purpose of carrying it over to the middle phalanx is to give it added support and firmness and prevent the possibility of its slipping off while the finger is in the upper pharyngeal space; in this respect as well as in a few others, it differs from the artificial finger-nail of Darby, of Capait, L. Browne and others.

While formerly having used various curettes and forceps, especially those of Göttstein and Löwenburg, for the reasons mentioned, I have discarded them all and now for upward of two years have used the simple plan above indicated.

The very fact of there being a very large number of the various instruments used in these operations would indicate to me that their work is not perfect. There are, for instance, the ring knives and curettes of Meyer, Störk, Bosworth, Göttstein, Mackenzie, Hartmann, Delstanche, Pynchon, Seiss, and others, and the forceps of Löwenburg, Gradle, Cohen, Hooper, Major, Casselberry, and others, all of which have their advocates; indeed, some men use several of these instruments at the one operation, of course using them on the anesthetized patient, as no one could possibly bear such torturing appliances while conscious.

In order to indicate to you how simple the entire proceeding is, I will briefly detail the steps in the operation:

*Presented to the Section on Laryngology and Otology, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

A child being brought to the office, presenting any symptoms suggesting adenoid growths, I commence by examining the nose and throat and then cleanse both thoroughly and yet very gently, all the time getting the child's confidence by coaxing, if necessary, but far more often by a plain statement of facts such as, "This spray will taste better," or "This will be disagreeable, but it won't hurt," or again saying, "Yes, I know it is not pleasant, but it must be done, and it won't hurt." After this is accomplished I, keeping the child seated on a revolving chair, with arm-rests and back, will lightly put my left arm about the child's head, holding his head against the lower part of my chest, and then telling him I want to feel something in his throat, I insert the right index finger in the mouth, having in the meantime wrapped the first phalanx with adhesive plaster, putting a turn or two of a two-inch bandage over it, fastening the end at the wrist, I quickly insert it back of and over the soft palate, and explore the entire vault at once; then finding everything favorable, I clasp the head more tightly, bending it forward some over a spittoon, speaking to the child all the time to attract his attention as much as possible from the matter in hand, and then with my finger-nail I proceed to break the envelopes of the enlargements and continue to scrape out all the diseased tissue. When I get over to the region of the Eustachian orifices, unless the swellings be large or very hard, I press on the thickened tissues until I find the contents have entirely escaped; this is done so as to form no contracting cicatrices in this region. I do not leave the cavity until I have either succeeded in removing all of the diseased tissue, or I am convinced that my finger-nail is not strong enough to cope with the form of tissue present, or there is evidence that the blood and detritus are interfering markedly with the child's breathing—these two latter conditions are very unusual in their occurence, and, should they occur, it means that either the same day or the next, if possible, I will again enter the cavity and, if necessary, with the steel finger nail, remove every bit of diseased tissue discoverable. The entire operation rarely takes more than two or three minutes, and is followed by very little hemorrhage.

After the operation I clean out the throat and nose carefully, use some soothing ointment in the nose, and advise that liquid albolene be used in the nose and throat at home. Two days thereafter I examine the region, and if everything is well, I re-examine after a further period of three or four days, when, if healing has been perfect, the upper pharynx will feel smooth and soft and there will be no danger of recurrence. To my knowledge I have had but one case recur, and that was recently, in the 7-year-old daughter of a physician, on whom, when I operated, I was at a disadvantage in having my finger-nail short and badly curved, my steel finger-nail being at the instrument maker's. A few weeks later I operated again, and this time without recurrence.

In operations by the ordinary methods the finger examination must invariably be made to verify the diagnosis, and this examination is almost as severe and disagreeable as my operation. Then the child must be anesthetized and subjected to a long operation, which is far more apt to do damage to healthy parts in that region, because there is no feeling touch at the cutting end of the instrument. Then when the operation is supposed to be done, the finger must be used to see whether all the diseased parts have been removed, and the shreds or larger masses remaining must be removed by scraping with the finger or some steel instrument. If with the latter, then another digital examination must be made at once, and then if all is well the child is allowed to come to, and if he recovers from the anesthetic, he will have a horror of the doctor as well as the doctor's finger being poked into its throat, and the chances are the doctor will presume this case is well and make no further digital examinations, while the condition may recur. I have had quite a number of cases come to me with just such histories, in which recurrence has been the sequel and in whom I have been perfectly successful by my method.

In a few words, the method consists in the examination for adenoids by the index finger and, if discovered, their immediate removal, without general anesthesia, while the examining finger is in place, by the finger nail. This failing to remove them, then their removal is to be accomplished by means of my jointed steel finger-nail. This is followed by careful digital examinations of the post-pharyngeal region, about every second or third day for about a week, when, if no growth appears in the cicatrix, recurrence need not be feared. There is but slight bleeding at the time of the operation, and but little pain.

I consider such an operation a natural and commonsense one, and thoroughly surgical in every respect, and it is based on the principles of the thorough and absolute cure of the case in the shortest time possible, with the least inconvenience and danger to the patient and without the slightest possibility of doing damage to the parts operated on. I consider the ordinary operations unsurgical in so far as they subject the patient to unnecessary annoyance and trouble, while at the same time inviting damage to the parts operated on and subjecting the patient to needless danger of an anesthetic, to which in this special form of disease he is peculiarly susceptible.

DISCUSSION.

DR. C. F. THEISON, Albany, N. Y.—I am glad the Doctor has had such good results with his finger-nail as well as with the artificial finger-nail; but I would suggest most strongly putting all these patients deeply under general anesthesia. The fact that a few have died under anesthesia, should not condemn the use of it. We all remember the patient that died not so very long ago under chloroform. Ether is more safe. I never operate without getting the child deeply under a general anesthetic, and with a trained assistant to give it and hold the patient in position. I first use the Göttstein curette, and if all the adenoid tissue is not removed in that way, I supplement it with a proper pair of forceps. I think that is the only proper surgical procedure, and it can not be too strongly emphasized, that, if the operation is done without an anesthetic, the operator, unless he is differently constituted from other men, gets nervous, the child becomes nervous and cross, and the operation can not be so well done as if the child were under a general anesthetic.

DR. EMIL MAYER, New York City—This brings to mind a talk we had a year ago on the same subject, and I suppose we will come to the same conclusion. The reader of the paper laid very much stress on the statement that the child would be very much afraid of the doctor who had given ether and who would from time to time poke his finger up into the posterior nares to see if everything was clear. I would not blame the child, but I do not think the child would like the gentleman much better who also put his finger up there and also a sharp instrument, while the child was not under an anesthetic. I consider the introduction of the finger into the posterior nares as absolutely unnecessary. We can make the diagnosis of adenoid vegetations in several ways, but there is one way that is often forgotten and on which I lay stress befcre my class, to which attention is rarely called. In the child that is reported to be a mouth-breather, whose general condition shows that he must have some glandular trouble, the posterior pharyngeal wall has a number of small follicles present. These follicles look for all the world like that condition found in the adult

and known as follicular pharyngitis. Why should you put your finger up there and simply hurt the child for no reason whatever? Regarding the anesthetic, anesthesia must be used properly and, like everything else, may or may not be harmful. It is so easy for us to give the child a few whiffs of nitrous oxid gas, and the operation may then be readily performed with any of the instruments and done absolutely aseptically, and the results will be satisfactory. We remove these growths. They are not to be looked on, when it is necessary to remove them, as being merely an everyday affair, but they are conditions that must be attended to, if at all, by some such procedure as I have just mentioned. As to using the curette, forceps, etc., you can see there what you are doing. But not every child with adenoid vegetations needs to be operated on. Then comes the question, what to do with the children that are bleeders. I had a child that came to me, on which the mother would not allow any operation to be done because she had bled considerably, and her brother and mother would bleed for hours even after the extraction of a tooth or any small operation. I gladly acquiesced and used the galvanocautery from time to time. It may be possible, in a case of that kind, that the only thing to do is to put the finger up into the nasopharynx and remove the tissue; inefficiently it may be, but the best we can do for that procedure is followed by as little loss of blood as possible. Otherwise I certainly believe that I am with the great majority who believe this procedure is unsurgical and liable to infection.

DR. J. A. STUCKY, Lexington, Ky.—I have performed a great many of these operations without anesthesia and a great many with it, and I do not think that I will perform any more without general anesthesia. With the child crying and struggling, if I crush off a piece of the adenoid it is likely to be sucked into the larynx and cause considerable trouble. I had that happen once and I would rather risk the anesthesia than risk that accident.

DR. THOS. F. KELLER, Tiffin, Ohio—My experience differs entirely with the writer as to the preliminary preparation for operation. I would never advise the removal of adenoid vegetations in the vault of the nasopharynx without the administration of an anesthetic. My preference in the kind of anesthetic for children is chloroform, for this reason: In the last two and one-half years I have administered this form of anesthesia exclusively, to 120 or 125 children without any ill effects. A great many advise ether while others use the A. C. E. mixture. Certain it is that experience differs along the same line of work.

DR. F. J. QUINLAN, New York City—We lay ourselves open to a great deal of blame by minimizing the significance of this operation for adenoids. This ordinary technic that I hear a number resort to, of doing the operation in the office and allowing the patient to go home, is a great injustice to ourselves. I will not operate on a patient in the office. If I have a patient, I tell the mother that the child must be profoundly anesthetized. I thus have the child completely under my control; the child is wrapped up, under a good light, and I can see every step of the operation. After I have removed all the tissue that the forceps can take away, I go in with the curette, and I do not tear away the whole pharyngeal wall. It is absolutely cruel to the patient to operate with a curette that is not as sharp as a razor. You do not want to tear the growths away, but cut them. I always have the patients sitting up. A great many operators place the patient on the back, but I never do that. The little pieces then hang down like icicles and they do not escape me. I have little fingers made of a turkish towel sufficiently resistant to go in and rub off the little parts that I can not feel. I got rid of them with the resistant material of the towel and in three or four days there is nothing at all left; it is perfectly clear and there is no tumefaction. I never flush the nostril with any antiseptic. We make a great mistake when we do this. Nature will take care of the cases and we need not be overofficious. Acute catarrh has often been the result of overmeddling after the operation has been done. Then I want to emphasize the importance of not minimizinz the operation, but doing justice to yourself and being absolutely in touch, and have everything there and do the operation masterly. If you put a low valuation on the operation. I do not think you do yourself nor your confrères justice. There is no operation in all medicine to-day that ought to stand higher than this, and that will nearer touch the apostle of God, so to speak. You simply place these patients on the steps leading up to the walk of life and give them the power to resist disease. Do the operation well and you are a benefactor to the human race.

DR. BAKER—We can do the operatien that is under discussion, in our office, with cocain, and the way to do it is with the forceps and pull these off and not subject our patient to the risks of general anesthesia. One of the gentlemen has spoken of the patient sitting up when under a general anesthetic; that is against all surgical procedure. No wonder your patients die. You can not give an anesthetic safely with the patient in an upright position.

DR. EMIL MAYER, New York City—In justice to Dr. Quinlan I want to say that he does not give the anesthetic with the patients sitting up, but sets the patients up after they are anesthetized.

DR. C. M. COBB, Lynn, Mass.—If a patient has an adenoid, he has some obstruction to breathing. The adenoid tissue may be either on the posterior pharyngeal wall, in and around Rosenmuller's fossa, or it is in the vault of the pharynx. A great many of these operations fail because you do not get the mass out. You can not get it out with the forceps or the fingers. I have tried to get it out with forceps and finger nail, and I find that you may sometimes get it out, but you can not always do it. If the child does not need an adenoid operation, or you simply wish to relieve congestion by free bleeding, you can do it easily with the finger. But if the child really needs an operation, you must be prepared to remove the adenoid tissue wherever you find it. It is impossible to put your finger up there and tell how far the tissue goes. I have done a great many operations without ether and with ether, and I have seen them done in several throat hospitals where they do them with the steel finger blade, but they are then simply successful for a short time. You relieve the congestion, and the next time the child gets a cold he will be as bad as ever. I want to protest against doing slight operations, for when we start in to do the operation we ought to do it thoroughly.

DR. W. K. ROGERS—A general anesthetic should always be given when making adenoid operations. Without an anesthetic it appears to me to be a barbarous operation, and I have done it both ways a great many times. You might as well take off a man's leg as to take an adenoid out of a child's pharynx without an anesthetic. In order to avoid the blood interfering with the operation and at the same time relax the parts efficiently, it is my custom to put the child on the edge of the table, much as in the Sims' position, leaving the legs out of the question, with one arm behind the back and the face well over the edge of the table. Then, sitting in a chair, with an electric light on the head and one finger in the pharynx, I can see and feel what I am doing and at the same time have the field clear of blood.

DR. LOUIS J. LAUTENBACH, Philadelphia—I would leave it to the physicians whose children I have treated in the past year for this very condition in this way, to judge whether the method is barbarous or not. Let those physicians who have had their own children operated on by the old method, under general anesthesia, followed by recurrence, and then had them operated on by my method, be the judges. Since the Denver meeting, I have had three such cases, the operation being followed by a complete cure. I operated on them without an anesthetic, and they have all been thankful indeed that no anesthetic was used. The doctor who sees the operation as I perform it is surprised at the ease and thoroughness with which it may be done. As I said in the paper, only one case has returned. These are facts. Theories are good things to go by until we know what the facts are. If you will give this the same attention that one or two others have given during the past year I think you will agree that the proposition is not an experiment, but a truth. I do not see how a doctor can possibly operate on a case of this kind and feel justified in allowing the patient to leave the office and go out into the world without having examined the vault of the pharynx with the finger. It is true that when a case presents itself to you in your office, in 99 cases out of 100—I was going to say 100 cases out of 100—you know whether you have adenoids and then you must conclude whether or not you will operate. If you let the patient leave the office without any examination when so readily accomplished, I think you have neglected one avenue of knowledge. I do not think any of the text-books will uphold an operation in such a case without a digital examination. How one can feel that it is right to let such a patient go without making an examination that will result in benefit to the patient, I do not know. I am sorry I can not give statistics of the number of deaths from anesthetics. But a few years ago in England fourteen deaths from chloroform occurred in 3 years. The number of deaths from general anesthesia must be very considerable indeed. I take another exception to a remark made here. I believe that adenoids must always be removed, whatever the general condition may be. It may not be that the condition present shows to our eyes any general systemic or nutritive change of the system, but it seems to me it is evident that sooner or later some disturbance must occur and you are justified in removing the cause of such probable conditions.

NATURE AND TREATMENT OF CUTANEOUS CANCER.*

BY A. RAVOGLI, M.D.
CINCINNATI, OHIO.

The heteroplasy, viz., normal epithelial cells in the wrong place, infiltrating the connective tissues of the parenchyma of the derma, or of the glands constitutes the essence of the cutaneous cancer, or epithelioma. It belongs to the class of the malignant growths on account of the persistent ulceration, of the tendency to recur after removal, of the infection which it produces in the tissues of the adjacent parts of the skin, and on account of the reproduction in the lymph-glands communicating with the lymphatic vessels of the affected part. It is not my object to develop the doctrine of cancers, which could not be done in the limits of a brief address, but I will only dwell on the nature of the cutaneous cancers and on their treatment.

Thiersch, in his remarkable work, published in 1865, on the epithelial cancers of the skin, distinguished two varieties from a topographical standpoint, one superficial, *flache Hautkrebs,* and another deep-seated, *tiefgreifende Hautkrebs.* These varieties of cancers are commonly accepted in the schools: 1, superficial, flat or discoid; 2, deep-seated or nodular; 3, the papillary.

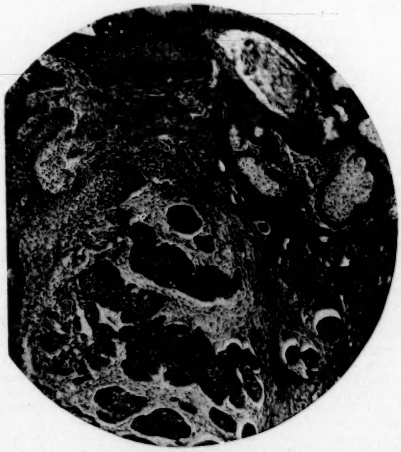


Fig. 1—*a*, epidermic cells from Malpighian layer infiltrating the derma; *b*, glands infiltrated with epithelial masses. Bausch & Lomb, ¼ obj.

I have lately had under my observation many cases of the first kind. In one case it began in a gentleman, 40 years of age, who had always been healthy, in the form of small, minute, reddish nodules to the number of three or four, one close to the other, about the size of pinheads, forming a semicircle on the temporal region. He had a slight itching sensation, which made him scratch. Some of those nodules got ulcerated, and on this account he came to my clinic in the Ohio Medical College. The surface was repeatedly treated with different caustics, but finding no result, we resorted to the excision of the diseased skin. The resulting wound was united with sutures, and in a few days healing was obtained. The affected skin was hardened in alcohol and sections made for anatomo-pathologic study. (Fig. 1.) You can see the clearest picture of the superficial epithelioma. With a small power the epidermis shows that it is deprived of its horny layer and that very little of the stratum lucidum remains. The Malpighian layer is increased, and the epithelial cells enlarged and increased in size, containing large nuclei in masses; they are coming down between the papillæ, infiltrating the interpapillary spaces. The same hyperproduction of epithelial cells is found in the sebaceous glands, forming round nests between the stroma of the derma, round or irregularly shaped, filled up with a large quantity of the ephthelial cells. The derma is affected only in its superficial portion. With a stronger magnifying power you see that infiltration to be made up of roundish pearls, consisting of an enormous mass of large epithelial cells, nucleated, disposed in a circular way, and surrounded by connective-tissue fibers, which form the base of the pearl. The connective-tissue fibers do not show much change, with the exception of the invasion of the epithelial cells in their midst. It is clear that from the rete mucosum the epithelial cells make their way down between the papillæ. In this specimen you can see that the blood-vessels are not much enlarged, and their tunics do not show decided alteration in their structure and in their condition.

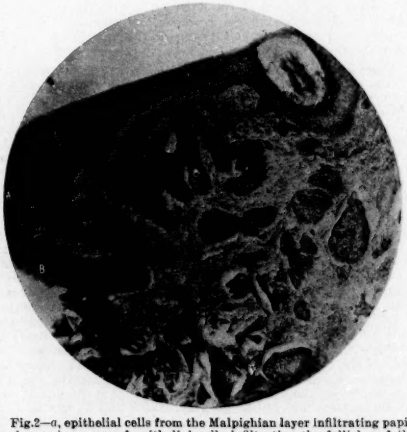


Fig. 2—*a*, epithelial cells from the Malpighian layer infiltrating papillary layer; *b*, masses of epithelial cells infiltrating the follicles of the skin. Bausch & Lomb, ¼ obj.

In a lady 59 years old I had occasion to observe the same kind of superficial discoid epithelioma, lasting for over thirteen years, which had begun, as the patient says, from a small mole, which she used to pick with her finger-nails. She came to consult me some five weeks ago. The affection consisted of a red ulcerated patch, round in shape, with hard infiltrated edges, reaching the size of a silver dollar, on the right cheek and on the right side of the nose. On the cheek there is already a deep canceriform ulcer, with granulations bleeding easily, and discharging a thin purulent matter, concealed in the natural depressions of this region. It has been already treated with caustics and with salves of different kinds, but no result has ever been obtained.

The lady allowed me to scrape one of the granulations in the ulcer of the nose, which after having been hardened in alcohol was made in sections. (Fig. 2.) It was

*Presented to the Section on Cutaneous Medicine and Surgery, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

an interesting specimen of cancer of the glands. The epithelial infiltration was all around in the superficial derma. Its origin was from the Malpighian layer and from the glands of the skin. The epithelial cells were coming down in the interpapillary spaces, and the glands showed the infiltration of the epithelial cells in their parenchyma. In some points already some of the infiltrating cells had undergone some degree of degeneration. The blood-vessels were free from epithelial infiltration in their tunics, and it seems the whole infiltration of epithelial cells has its origin from the mucous layer of the epidermis and from the epithelium of the glands. Like in the other case, the epithelial cells are contained in nests in the interior of the glands, and no free infiltrating cells are found in the connective-tissue fibers of the superficial or of the deep derma, like we see in other species of cancer, where the infiltration seems to start from the blood-vessels.

The resulting ulceration of this kind of epithelioma is sometimes so superficial as to involve only the papillary layer of the derma. It heals in the center and spreads by its periphery. In some cases while healing

Fig. 3.—Deep carcinoma of the skin, *a*, elastic fibers dividing the derma; *b*, epithelial cells infiltrating the connective tissues of the derma; *c*, upper portion of the derma and papillary layer showing little infiltration. Bausch & Lomb, ¼ obj.

up in different parts it forms a deep ulcer around the periphery. This we find in the case of the gentleman represented in the illustration, as a case of epithelioma or uclus rodens of the temporal region. This patient has been affected with the present ulcer for the past eleven years. His photograph shows that a superficial ulceration, with destructive results, has gone for a long time, judging from the scar remaining. In the last four years the ulcer showed a tendency to grow deeper and has caused a loss of substance in crateriform appearance. The bottom of the ulcer is covered with abundant round rose-red, large and succulent granulations, with the edges hardened and thickened. In some places the ulcer has gone so deeply as to show scales of necrotised bone. It is round in shape, touching the eyelids and covering an area between the temporal, zygomatic and frontal regions, about the size of a goose-egg. The granulations which cover the bottom bleed at any slight touch, and show deep impressions. They have, however, no tendency to capillary excrescence like we see in other cancers. The edges, hard and infiltrated, show the fresh ulcerations from the breaking down of the new epitheliomatous nodules. One small piece of the skin near the edge of the ulcer was taken off and hardened in alcohol and then cut in sections.

In these specimens we find nearly the same appearances that we have found in those of the other cancers. The infiltration of the epithelial cells is greatly exaggerated. The immense quantity of cells is produced by the stratum spinosum of the epidermis which is directly connected with the masses of infiltrating cells among the papillæ. In this case we find that the inflammatory process is more advanced. There are many round inflammatory cells infiltrating the connective tissue. The connective-tissue fibers are already hypertrophied. Foci of degenerated cells can be seen in the midst of the infiltrating cells. The papillæ are enlarged, displaced and disfigured under the mass of the epithelial cells, which are crowding them up and filling all the spaces. In the lower layers of the derma, the infiltration seems due more to the inflammatory cells than to the infiltration of the epithelial cells. The fusiform cells are increased and swollen, and we can see a kind of new growth in the

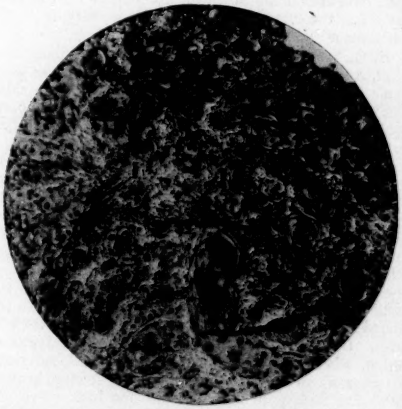


Fig. 4.—Epithelial cells infiltrating the connective tissues of the derma. ⅛ obj.

fibrillary tissue. The growth of the connective tissue, however, does not reach the degree of hypertrophy which we find in the deep-seated cancerous forms, but on account of its resistance it never exceeds the level of the ulcer. The long-standing ulcer, without much discharge, is a characteristic of this disease. The granulations are covered by epithelium, but they are deprived of the horny layer. The stratum spinosum with the layer of epithelial cells is well developed, as you can see from the illustration, and the epithelial masses from it enter in the connective tissue forming the stroma of the derma. Sometimes in some points the ulcer is covered with epithelial masses simulating a kind of whitish superficial cicatricial tissue. From this covering of epithelial masses and from the resistance of the connective tissues can be explained the absence of pain, which is remarkable in these rodent ulcers. This cancer, however, like any other, can take the same appearance of the deep-seated. It loses that peculiar consistency and becomes softer; the collagenous substance and the fusiform cells dis-

appear, nests of plasma cells remaining. The lymphatic spaces become enlarged, and the connective tissue takes a succulent appearance, becomes edematous, the nests of the epithelial cells have a tendency to liquefy, and the whole mass takes the form of a common carcinoma.

The second variety of skin cancer is that called deep-seated or nodular epithelioma. In some cases the affection may be the result of the first variety, or it begins directly as such. A kind of deep movable papule imbedded in the tissues of the skin is felt at the first starting. It gradually grows to a tumor the size of a nut, hard, firm, elastic to the touch, with indurated prolongations in the subcutaneous tissue. The skin is elevated, glossy, pinkish in color, and covered with dilated capillaries. After a certain time ulceration takes place, sometimes on the surface; at other times breaking down in its center, destroying the epidermis and causing a deep undermined ulcer, surrounded by numerous other waxy nodules of the same nature.

In this variety of skin cancer the course is more rapid than in the first variety, and in a few years the lymph-glands are involved and death takes place through marasmic condition. Several unfortunate cases of this kind have been lately under my observation. I will limit myself to two cases, which I consider were types of this carcinoma.

H. O., married, was admitted to the Cincinnati Hospital, Aug. 31, 1898, for a papillary growth on the glans penis and swelling of the inguinal glands of both sides. The growth was in the form of a cauliflower and occupied nearly the whole glans. The patient had first noticed a small wart, scarcely eight months before. I recognized the malignant nature of the growth and of the affection of the inguinal glands. On September 5 the penis was amputated and the glands of both groins perfectly extirpated. The patient recovered very promptly from the operation, the wounds were healing satisfactorily, but a secondary cancerous nodule appeared on the external region of the left hip. The patient was advised to have the growth removed, but he left the hospital Dec. 6, 1898. On Jan. 4, 1899, he was again admitted to the hospital. He was very much emaciated and weak. On the penis and on the scars of the inguinal region, where the glands had been removed, no signs of recurrent carcinoma could be found. A large growth about five inches in diameter and one inch above the level of the skin had its seat on the outer portion of the left hip. It was broken down, showing large and crateriform deep ulceration in the middle, discharging a thin serum of very offensive odor. On January 6, Dr. J. C. Oliver operated on the patient. The whole tumor was removed, and four days later, after the necessary preparation, the whole surface was grafted with skin taken from the thigh. On February 6 everything seemed to be in a very satisfactory condition, but cancerous nodules began to appear all around the skin grafting, which in a few days attained the size of an English walnut. The grafting of the skin had taken very successfully; numberless cancerous nodules had developed.

The patient received injections of formalin, 1 to 5 per cent. in the cancerous nodules, of which we will speak later when treating of the therapeutic means for cutaneous cancer. Death occurred on April 2, from marasmus, the patient remaining for nearly one day unconscious. The post-mortem did not reveal any important ulceration in the different organs. The most important fact is that no secondary growths were found except in the skin and subcutaneous tissue, in the immediate locality of the penis, the inguinal region and the left thigh.

During life one nodule of the cancerous growth was excised, hardened in alcohol, and sections made for anatomo-pathologic study The epidermis had very little of its horny layer and scarcely a trace of stratum lucidum, but the stratum mucosum and spinosum is well maintained; the papillæ do not show much alteration, in fact the superficial layer of the derma has very little infiltration of epithelial cells and the infiltrating cells are more inflammatory cells. However, some blood-vessels can be seen greatly enlarged, and around them we find small nests of epithelial cells surrounded by fusiform cells from the connective tissues.

Fig. 3 gives an idea of this queer kind of carcinoma and gives a peculiar feature of the elastic fibers which, in longitudinal bunches, divide the derma into two layers; the superficial, which we have just studied, and the deep, which is enormously infiltrated with large epithelial cells in a reticular way. The epithelial cells are large, following the direction of the connective tissues, containing from two to six nuclei bound and connected together as in Fig. 4. In this specimen with a small power can be seen a kind of small alveolar structure, which is more apparent with a higher power, as in Fig. 5, where the alveolar structure is clearer, each alveoli containing those large nucleated epithelial cells crowded together one upon the other. It corresponds to the description of the form called by Unna small alveolar cancer, where the alveoli contain no more than three or four epithelial cells of the glandular quality, and the alveoli in their disposition resemble somewhat the cerebral circumvolutions. In this case the connective tissue is reduced to less than its normal condition; mast cells and plasma cells are scarce in number. The blood-vessels are enlarged, and the epithelium of the intima shows a great proliferation. (Fig 6, 1/8 power.)

The vegetating form of epithelioma is nothing else than a variety of the deep-seated epithelioma, malignant and infectious. It is usually found in connection with other forms of carcinoma springing up from the cancerous ulcer, especially coming from mucous membranes. Its ordinary seat is the lips and the glans penis. The papillary growths project over the borders of the ulcer in the form of a cauliflower protrusion, very vascular, bleeding readily, spontaneously or in consequence of a slight touch. The lymphatic vessels become readily involved and the lymphatic glands show carcinomatous reproductions. They are capable, in three or four years, of causing death.

I will refer to a case of this kind which I had in my service in Cincinnati Hospital, and in which the patient died only a few weeks ago.

Wm. R., 39, years of age, born in Cincinnati from healthy parents, came to the hospital to be treated for an enormous papillary growth of the penis, scrotum and surrounding skin. Patient claimed that when 9 years old he fell from a ladder and caught the penis on an iron bolt and tore it. Some twelve years ago he contracted syphilis. Over three years ago the present affection began, in the form of a small hard pimple on the glans penis, above the meatus, not at all in connection with the scar of the already mentioned injury. Numerous warty productions appeared around the first until after six months from the appearance of the first nodule, he could not bring the foreskin over the glans. The production soon affected the whole skin of the penis and scrotum, often produced loss of blood, causing a remarkable emaciation.

It was a cauliflower growth involving the skin of

the whole penis, which was adherent to the cancerous production of the scrotum, forming a round mass covered by large vegetations. The meatus was buried in the growth. The abdominal wall on one side and part of the perineum on the other was comprehended in the cancerous infiltration. Over the pubis was a large carcinomatous ulcer of the size of a half dollar. The subcrural and the inguinal glands were involved. The vegetations caused an abundant discharge with an offensive odor. At the slightest touch they bled profusely. The patient was exceedingly emaciated.

There was no possibility for any operation, and all that could be done was to limit the treatment to external applications and internal administration of tonics. The application of a solution of formalin, 2 to 5 per cent., for a short time every day, caused the necrosis of the papillary growths, which under a continuous bath of a solution of campho-phenique, sloughed off in a short time, bringing the whole mass down to nearly the normal condition.

An abundant suppuration began, with high temperature, gastro-intestinal disturbance; the patient became delirious and died.

The post-mortem revealed the carcinomatous production limited to the skin and subcutaneous tissue of the affected regions and to the lymphatic glands of the groins and the subcrural region. No reproduction of carcinoma was found in the internal organs. Liver, spleen and kidneys showed that peculiar yellowish color and flaccidity which we find in cases of death from sepsis.

Fig. 5.—Large epithelial infiltrating cells surrounded by polynuclear connective tissue fibers. Immersion lens 1-12.

During life a piece of the affected skin of the penis was cut off, hardened in alcohol, and cut into sections for microscopic study. Fig. 7 with a small power shows the epidermis deprived of its horny layer, of which only shreds remain. The corpus mucosum hypertrophied, in a great mass, covers a quantity of elongated papillæ. Unna denies that the papillæ have anything to do with the old normal papillæ of the derma. In my specimens it is clear that these papillæ have nothing to do with the normal papillæ, and you can see very clearly from the layers of the superficial derma spring up three and more papillæ with branches like trees, showing one to be the stem, from which others are coming up at different degrees of development. The papillæ are made up with connective-tissue fibers and the connective-tissue corpuscles are enlarged, but no epithelial cells could be found in their midst, so that they are simple connective-tissue growths without cancerous stroma. In the larger papillæ blood-vessels are seen in longitudinal arrangement, running into the papillæ. The epithelium is enormously increased on the top and in the interpapillary spaces; the epithelial cells largely increased in size are crowded greatly out of proportion. The cells which form the basal stratum are irregularly disposed. They do not maintain their cylindrical appearance, but are epithelial masses of different shapes. The connective tissue of the derma is greatly hypertrophied and many leucocytes are found infiltrating its meshes, showing a great relation to the lymphatic spaces. The blood-vessels are perceptible in great numbers, much enlarged and surrounded by infiltration of epithelial cells, and we can say that around the blood-vessels we find the true areolar stroma of the cancer. The cancerous infiltration is not so abundant, but its malignancy is superior to any other kind of cancer on account of the prompt affection of the lymphatics and of the lymphatic glands. I think that the luxurious growth of the papillæ is only the result of the hypertrophy of the connective tissue, through the irritation and the abundance of the vascularity, which causes the hypernutrition of these tissues. The papillary growth is not at all characteristic of the carcinoma, and really the reproductions of the carcinoma from a papillary one are of the nodular variety. For this

Fig. 6.—Epithelial cells, proliferation arising from the intima of the blood-vessels. ⅛ obj.

reason I believe it is not exactly necessary to consider the papillary cancer as a separate family of these tumors, but only a variety of the nodular or deep-seated leaving intact the fundamental classification of the cutaneous cancers, in superficial and deep-seated.

From the few anatomo-pathologic notes which I have given above I think that the most natural distinction of the epithelial carcinoma is the superficial, beginning its development in the superficial layers of the papillary layer, and second the deep-seated, nodular in the dermatologic sense, developing in the deep layers of the corium and affecting the surface only secondarily. I find that my ideas on this subject are in accordance with those expressed by Ernest Besnier and Dayon in the notes to the third edition of Kaposi. Unna[1] very wisely objects to the mentioned distinction of the cutaneous cancers, believing it to be not only unnecessary but also dangerous, on account of the confusion of the different forms already brought about. He claims that some authors have considered forms of cancer of a destructive nature, like

[1] Die Histopathologie der Hautkrankheiten, Berlin, 1894.

ulcera rodentia, as superficial and benignant. Indeed, the spreading of the cancer in the surface of the skin, the ulceration, the degeneration of the epithelial cells, are not enough reasons to authorize us to make the distinction in flat and deep-seated. Any cancer malignant in nature, tending to metastasis, producing cachexia, is deeply seated, and yet every cancer has had an innocent local period, in which it was more or less superficial or flat.

I find, however, that the distinction of the cutaneous cancers in superficial and deep corresponds much better with the clinical observations and with the pathologic alterations. We have seen that in all the superficial cancers the derma is affected only in the most superficial layer, that the epithelial cells come down from the stratum spinosum of the epidermis and like indentations force their way between the papillæ, while in the second class of cancer we find the superficial layer of the derma little or not at all affected. The epidermis has no active part in the production of the epithelial cells infiltrating the tissues, but they are found in large quantities in loculi formed by the connective-tissue fibers in the deep layers of the corium. I find in my specimens that the production of these epithelial cells is greatly connected with the blood-vessels, as the intima shows a great proliferation, and the infiltration of these cells is more abundant around the blood-vessels.

In my opinion the distinction of the epithelial cancers in superficial and deep-seated clinically gives us a clew for the prognosis and also for the treatment.

The sebaceous glands and also the sweat-glands are affected in their epithelium, and the glands are sometimes changed in a carcinomatous mass. Case 2 shows clearly the stroma of the gland disappeared and changed into a mass of epithelial proliferation. But I think that it would be rather difficult to base a distinction of the cancer on the different organs of the skin affected, and would not be of any benefit for clinical purposes.

The papillary cancer or cancer vegetans, which is so malignant, which so soon brings lymphatic cancerous reproductions, which in a short time causes cachexia, has to be considered only as a variety of the deep-seated cutaneous cancer. The papillary hypertrophy, the epithelial vegetations, are more secondary lesions than primary. In my photographs of the papillary cancer you have seen an enormous growth of the papillæ and hypertrophy of the connective tissues, but the epithelial infiltration you find mostly in the deeper layers of the corium and around the blood-vessels.

For these reasons I believe that this simple primary distinction of the cutaneous cancers is useful for the clinician, and all the other varieties based on the histology of the cancerous productions, on the form of the epithelial cells and on their disposition, are only of a secondary interest. In my specimen of the superficial cancer you will see that in every one there is the alveolar disposition of the connective tissues. The epithelial cells are completely surrounded and contained in loculi formed by the connective-tissue fibers. This peculiar feature is the reason that this kind of cancer can remain for many years, spreading very little, and producing no infection in the lymphatic glands. This is the reason why this kind of cancer has been said to be of a benignant nature, non-infecting; but the moment comes when it will show its malignancy like any other malignant growth of the kind. I have no intention of making of this kind of cancer, which has been called alveolar cancer, a principal variety. Histologically it will be interesting to distinguish the variety, but clinically it remains with the flat epithelioma, with its apparent benignancy and with its intrinsic malignancy. In the cells of the carcinoma there is a peculiar morbidity. They change places easily, as has been already observed by Waldeyer, and the cells around the nests show all the different shapes. This condition makes very easy the spreading of these cells through the lymphatic spaces and the lymphatic vessels. In Case 4 the secondary carcinomatous nodules followed exactly the path of the lymphatic vessels. The most common degeneration which the epithelial cells undergo in the alveola is the hyaline degeneration, although very rarely the keratodes and the calcifying degeneration may be found.

In my specimens I find a great difference in the formation of the carcinoma. In the superficial they show the epithelial cells coming down directly from the stratum spinosum, affecting primarily the papillary layer, and very little carcinomatous infiltration being found in the deep layers of the corium. In these cases the infiltration of the deep corium, especially in the ulcus rodens, was due to inflammatory cells. In cases of superficial cancer we find that the blood-vessels are normal and the epithelial cells are contained in alveoli formed by the connective-tissue fibers. The hypertrophy of the connective tissue was not so apparent as it was in the second variety. In the deep-seated cancer we have seen the palpillæ nearly normal and the epidermis without any apparent alteration. The infiltration of the epithelial cells is found mostly in the deepest layers of the corium. The blood-vessels are enlarged and a large quantity of epithelial cells are coming out of the intima of those vessels. The infiltration of the epithelial cells is found mostly around the blood-vessels, and for this reason I would not deny the possibility that the origin of the epithelial cells infiltrating the connective tissue can be found in the proliferation of the epithelium of the intima of the blood-vessels. In this deep-seated carcinoma we find that the infiltrating cells are not contained in loculi and restrained from spreading, but they infiltrate the connective tissues nearly free. With high power, however, we find that these large epithelial cells, furnished with enormous proliferating power, are also surrounded by some mast cells, and a few plasma cells, which constitute their nests.

From the histories of the patients and from the peculiar structure of the two classes of cancer, we can infer that although both diseases are of a malignant nature, yet the first is less infectious than the second, which in a short time reproduces on the lymphatic paths numerous carcinomatous nodules of the surrounding skin, soon causes cachexia, and leads the patient to a fatal end.

It is very hard to discuss the nature of cancer. Lebert and Hanover believed they had found the cancerous cell proper of these tumors, but this cancerous cell was nothing else than the epithelial cell in proliferation, which could not be differentiated from a physiologic cell. This apparent benignancy in remaining limited, at least for some time, caused the epithelial cancers to be considered as different forms, and for this reason Lebert called it psuedo cancer, and Hannover, epithelioma. From the works of Virchow, however, the malignant tumors were separated into the two classes, carcinoma and sarcoma. All tumors showing an alveolar structure with epithelial contents, were classed among the carcinoma, and from this time the epithelial cancers remained as true cancers.

The production of these epithelial masses was the great point to be established, and we find that Virchow

and Foerster considered the epithelial cells as the production of the proliferation of the corpuscles of the connective tissues, independent of the pre-existing epithelium of the corpus mucosum and of the glands. Thiersh, on the contrary, establishes the origin of the cancer from the preformed epithelium, in consequence the pathologic production of the epithelial cells must be the result of the pre-existing epithelium. Thiersh, however, had neglected the alveolar structure, on which Rokitansky had previously insisted so much, and limited himself to the epithelial infiltration. Billroth found the epithelial infiltration in the connective tissue in consequence of the cancerous stroma necessary for the cancerous nature.

With all the studies of histology and of bacteriology, we are at the same point. We do not know what is the real cause of carcinoma. The theory of the parasitic elements already proposed claimed some protozoa to be the cause of the cancer. I only mentioned the studies of Darrier and Wickham on the Paget disease and the demonstration of the psorosperma and of the coccidia. I must say that for several years I have been a supporter of the psorosperma, but in these last years I was compelled to modify my views and return to the same point. I do not know.

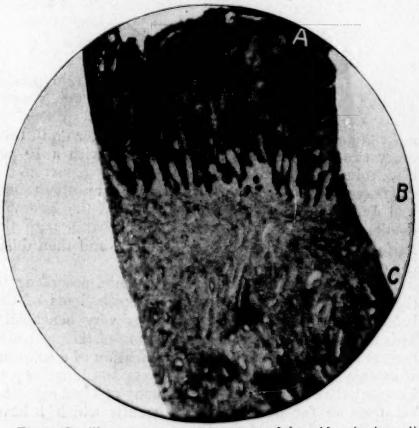


Fig. 7.—Papillary cancer. *a*, mucous layer of the epidermis; *b*, papillæ elongated and increased; *c*, derma infiltrated with epithelial cells and inflammatory elements. ¼ obj.

It is a very easy thing to prepare these large round bodies, which have been considered as coccidia, but when the same forms have been found in many other diseases of entirely different nature, it is our duty to disbelieve entirely this opinion.

What these round bodies are is explained by Unna[2] and Boeck[3]. They are of the opinion that these bodies are produced by epithelium in hyaline degeneration. The apparent peculiarity and specificity soon disappear, comparing these large round bodies with hyaline epithelium found in other dermatoses. We have seen in the previous histologic considerations, that in carcinoma very frequently the epithelium is affected with hyaline degeneration. Unna explains the vitreous ring which is seen around the round corpuscle to be the result of a swollen hyaline ectoplasma, and the internal narrow with double contour as endoplasma, which in some epithelium is only compressed, in others it is in hyaline degeneration. Two epithelial cells, one close to the other, hardened in hyaline degeneration, may form a ring with two Darrier's bodies, which is two nuclei covered by one endoplasma. And again when young epithelial cells are affected with hyaline degeneration, when the distinction in endoplasma and ectoplasma has not yet begun, the hyaline masses are formed with well-preserved nuclei, and this is that which makes the Darrier's round corpuscles. The hyaline degeneration affects young and old cells of the stratum spinosum, and the finding of more nuclei in one cell is the result of several cells affected with hyaline degeneration in close connection. From these considerations the coccydium is nearly out of question, and there remains only the supposition of the parasitic origin of the carcinoma.

ULCUS RODENS.

I will only mention that lately this subject has been approached from the side of the essential vitality of the epithelial cells and their reaction to various irritants[4]. Dr. Hektoen, in his review of this subject, in "Progressive Medicine," refers to the experiments of Dr. Ljunggren, who could preserve pieces of human skin in sterile ascitic fluid for months, the cells of the tissues retaining their vitality. Pieces of skin kept in such sterile fluid for a month were successfully transplanted, and it could be found that a proliferation of epithelial cells had occurred. In the same review Hektoen refers to some observations made here in the United States by Loeb. He writes that from the margin of a tissue defect, huge epithelial protoplasmic or plasmodal masses, move in a sliding manner over the marked surface, inclosing and dissolving the crust and their obstacles. Regenerating epithelium readily removes such substances as cartilages when placed in its way. Below

[2] Die Histopathologie der Hautkrankheiten. Berlin. 1894. p. 286.
[3] Vier Fälle vor Darier'scher Krankheit. A.A. 1891.
[4] The Virginia Medical Semi-Monthly, March 24. 1899.

the protoplasmic layer, epithelial cells wander in from the margins of the defect and often grow down into the connective tissue, apparently checking the growth of the latter. This process is closely allied to the changes which occur in carcinoma. Loeb believes that the wandering of the cells is in response to stereotropism, and forms a determining factor in inducing mitosis in the remaining cells. The action of the epithelial elements to arouse at a distance the germinal activity of the epithelial cells constitutes the essence of the carcinoma.

These physiopathologic studies are in relation to clinical observation. Indeed, we must say that cancer is developed in parts which have been exposed to a continuous irritation. The cancer of the lips and of the tongue in inveterate smokers shows that this epithelial proliferation in the tissues is preceded by a constant irritation. A patient lately came under my observation with an epithelial cancer in the form of a bracelet around the middle of his forearm, and he explained to me that the disease was due to his habit of carrying every day for many years a heavy market basket on that arm. Every patient tells us that he had a small wart or mole, which he was in the habit of picking with his finger-nails, and in consequence caused the ulcer. I believe that a continuous irritation to any part of the skin is the starting point of the epithelial proliferation and of the consequent epithelial cancer.

Epithelioma has been often seen on lupus; from the lupus ulcers start epitheliomatous conditions. Cases of this kind have been referred to by Bidault, Raymond, Hutchinson, Kaposi, etc. The question is whether the cancer is developed in the cicatrix or in the lupus ulceration. Hutchinson[5] gives a fine illustration of lupus cancer in a woman who had suffered from lupus for about thirty years, and on the scar of lupus on her upper lip a malignant growth had taken place. It seems that the scars are often the starting point of the cutaneous cancer, as the *pars minoris resistentiae*. It is singular that the course of the epithelioma in the scars is slower than in the normal skin, and usually the ulcerative forms are more frequent than the papillary.

I cannot neglect one of the most interesting questions: whether syphilis has any influence on the production of the cutaneous cancer. There are some syphilitic ulcerations which easily can be mistaken for epithelioma. In case of a slight doubt of the existence of syphilis, before operating on an epithelioma the patient must first be subjected to an antisyphilitic treatment. I do not believe in any mixture of syphilis and cancer, but for the reasons already expressed, cancer can develop on a syphilitic ulcerative process or on a scar of a syphilitic ulceration. In this regard Besnier refers to a paper of F. H. Ozenne: "Du cancer cher. les Syphilitiques, de l'hybridité cancero-syphilitique de la cavite buccale en particulier." These de Paris, 1884.

The author believes in the association of cancer and syphilis, forming a mixed condition, a well-defined pathologic hybridity. The antisyphilitic treatment may improve this condition for a short time, but later the cancer continues its destructive course. In a few cases which I have had under observation, I have found it rather difficult to establish the exact diagnosis from the clinical symptoms, and only the anatomo-pathologic study can furnish us the differential diagnosis. Syphilis is the cause of irritation, creates *partes minoris resistentiae*, which can be later affected by cancer. It seems that syphilis diminishes the virulency of cancer, but gradually disappears from the scene, and the cancer continues in its destructive activity. In conclusion, both diseases have nothing in common, only syphilis may cause cancerous productions on account of its long-standing ulcerative process.

Treatment.—It would require a long article to review all the different remedies, caustics, and methods of treatment for the cutaneous cancer. I must state that the distinction of these affections into superficial and deep-seated is a great help in the choice of the method of treatment to be adopted for the different cases. The base of treatment is to destroy the growth as soon as possible, and to destroy it deeply and at a certain radius of distance, to be sure to have removed the tissues where a potentiality of development of the infiltrating cells can be found. The methods of destroying the cancer can be reduced to cauterization, curettement and surgical exeresis.

Cauterization can be done with any kind of caustic which destroys the tissues, or with the actual cautery. A large number of substances have been employed to destroy superficial cancers, with different results. Local applications of acetic acid have been recommended by Arnozan[6]. The application of the Vienna paste, the mixture of Manec, arsenious acid 2, sulphate of hydrarg. 6, calcinated sponge 12, and the application of chlorid of zinc, have been praised as a chemical means of destroying carcinoma.

Resorcin, especially in the form of resorcin plaster mull of Unna[7] has been used with benefit in two cases of ulcus rodens by C. Beck of Christiania. Unna, in association with the application of his plaster mull, used every two or three days a cauterization with a 10 per cent. solution of resorcin in alcohol. In a report at the sixty-second meeting of the Deutscher Nauturforschers und Aertze, in Heidelberg, Unna spoke of the favorable results obtained in ulcus rodens by removing with the knife the superficial layers of the ulcer, and then dusting over with pure resorcin.

In the same way a solution of arsenic, according to the method of Czerny-Trunecek, in epithelioma of the inferior lip, has been referred to as very beneficial[8]. This method consists in the scarification of the epitheliomatous surface, followed by the application of a solution of arsenic acid, 1 gm., alcohol and aqua destil. aa. 75 gm. I can say that I have used a great many of these caustics, but none so far have given the results which I have lately obtained from formalin.

A lady, Mrs. B. McD., came to me for a recurrent superficial carcinoma of the left cheek, the size of a 25-cent piece, touching the inferior eyelid and the nose. It had been already scraped and cauterized by a colleague, but the ulcer returning, the lady called on me. I proposed the removal of the growth, to which the lady objected. I began to use several different remedies, among them caustic potash and resorcin, but after the necrotic portion had sloughed off the growth was progressing in its course. I was just using a 4 per cent. formalin solution to harden some microscopic sections made through the freezing microtome, and seeing the wonderful action upon the tissues, I thought I would try it on the carcinomatous. The ulcer was covered with cotton saturated with a solution of formalin, and kept on for nearly thirty minutes. The lady complained of a sharp pain, and soon a mild dermatitis followed which in two or three days subsided. When the patient came back, all the carcinomatous nodules were changed

[5] Smaller Atlas of Illustrations of Clinical Surgery, London, 1895.

[6] Bulletin de la Soc. Franc. de Derm. et de Syph., 1890.

[7] Monatsheft f. Pract. Dermatologie, Band vii, No. 4, p. 173.

[8] Presse Medicale, 1898, No. 75.

into a white yellowish mass adherent to the tissues, and this gradually sloughed off leaving good tissue underneath. From 4 per cent. I reached 8 per cent. and 10 per cent. solutions, and finally I began to apply the pure solution as it comes in commerce prepared by Merck, under the name of formaldehyde. In a few weeks the ulcer was healed up and I was able to show her to the Academy of Medicine of Cincinnati on account of the remarkable result.

Encouraged by this success I began to treat Mr. P. B., 68 years of age, an engineer, for an ulcus rodens of the left portion of the nose, from the tip to its base. For over seventeen years he had been affected with this disease. With repeated applications of formaldehyde—at times an 8 per cent. solution, at times just as it comes in commerce—I have succeeded in obtaining recovery of the whole ulcerated surface. At present there remains a small nodule inside of the nostril, which was cauterized with the remedy mentioned. In the second case referred to I am using formalin to touch up the surface of the cancerous growth, and the improvement is very remarkable. In a patient in the hospital, a lady 52 years of age, with a small superficial carcinoma of two years' standing, I have cauterized the growth with a paste made out of starch, prepared chalk and oxid of zinc, equal parts, incorporated with formaldehyde to make a paste. This paste has been applied twice, and at present the whole growth is changed into a black hard crust, which is gradually detaching from the normal tissue. Before applying the paste we cocainize the surface so as to diminish the pain, and it is also necessary to cover the eyes with cotton so as to prevent the vapor of the formaldehyde from irritating the conjunctivæ. In a case of nodular cancer reported, formaledehyde, from 1 to 5 per cent., was injected with the Pravatz syringe in the carcinomatous nodules. The injection caused the breaking down of the nodules and an abundant sloughing, but it was stopped on account of the resulting pain. In the papillomatous carcinoma of the penis already referred to, the applications of a solution of formaldehyde, from 4 to 8 per cent., for half an hour every day, caused necrosis of all the papillary growths, so that in a few weeks the enormous mass was reduced to nearly the normal size.

Formaldehyde[9] has powerful bactericidal properties, as was pointed out by Locu, 1886, and later by Aronson, Berlioz and Trillat. When formaldehyde gas in solution was added to cultures of bacteria, Pattevin found that their growth was arrested. It is obtained by the action of methyl alcohol vapor and air on platinum heated to redness. The process was difficult and dangerous on account of its explosiveness, but lately it has been modified and rendered very simple. Formaldehyde is not poisonous in the strict sense of the word. In some experiments on animals during disinfection maintained for several hours, no one of the animals died. It is considered the most powerful non-toxic antiseptic and bactericide. Introduced into the circulation it is poisonous, on account of the coagulation of the blood, which it easily induces; and if introduced into the stomach, it causes a violent irritation with vomiting. In many patients while using formaldehyde freely on the affected surface, it has never caused any general trouble of the nervous system.

It seems that the penetrating power of formaldehyde is greater than is usually supposed. Professor De Rechter of Brussels was testing its power on human and animal cadavers exposed to the fumes of 40 per cent. formaldehyde. The cadavers could be kept for months without any trace of decomposition, or if it had already begun it was immediately checked by the vapor of the formaldehyde. In cadavers of guinea-pigs that had died from anthrax or tuberculosis, and also in the lungs from tuberculous cows, the organs were found completely sterile in two to six days. The tests prove that the formaldehyde penetrates the whole substance of the cadavers and kills the bacteria and anthrax spores in them'[10].

From these considerations on the physiologic action of formaldehyde, there is reason to believe that from its penetrating power it is able to reach the nest of cells of the superficial cancer and reduce them to a hard detritus, which is subsequently sloughed off from the normal tissues. In order to increase its action, when applying the paste it is better to cover the paste with a piece of rubber or of oiled silk, so as to prevent its rapid evaporation.

I consider formaldehyde in superficial cutaneous cancer as one of the best local applications we have. It is non-poisonous, therefore there is no danger as in the application of arsenic paste; it has the power of penetration into the tissues, therefore an action which spreads deep into the tissues, destroying the cancerous infiltrations. The deep-seated nodular carcinoma of the skin has also been treated by bathing with a 4 to 6 per cent. formaldehyde solution, and I must say that in spite of the bad condition of the locality, the patient has been benefited by these applications.

The curettement, used a great deal by Kaposi and also by Bessnier, is a good method for a superficial epithelioma, if followed by cauterization, even with the thermocautery, or with formaldehyde. The curettement removes the cancerous tissue on the surface, but does not remove the whole affected mass. Many nests of cells remain in the surrounding derma which the curette can not reach; in consequence, relapse is promptly at hand. But when the curettement is followed by a thorough cauterization, then it is one of the best therapeutic means we have.

When we have to do with a deep-seated, nodular carcinoma, or with the papillary vegetating cancer, the surgical exeresis is the best treatment. The removal of the whole growth at some distance from the healthy skin is the only means of destroying the growth and preventing infection. In the cases where the lymphatic glands near by are involved, it is necessary to resort to surgical extirpation of the lymphatic glands in order to prevent relapse.

In the unfortunate cases where the growth has taken such proportions as in our two cases above referred to, any surgical operation is absolutely impossible, and we must remain powerless spectators of the destruction.

The method of Coley, of injections with the solution of cultures of bacillus prodigiosus and streptococcus erysipelatis has been tried, but the results have been entirely negative. I have used this method in a few cases, but the results have been such as not to invite me to further experiments. The same ideas I find expressed by B. Korff in his paper, "Uber Carcinombehandlung mit Streptococcus prodigiosus Kulturen, und negativem Resultat."[11]

At this point the patient is already greatly emaciated, the cachexia is rapidly increasing, the extensive ulcers are discharging offensive matter, yet a solution of 2 per cent. of formaldehyde left for some time on the

[9] Formaldehyde, Its Nature, Properties and Uses. By F. E. Stewart, M.D. Merck's Archiv., January, 1899.

[10] Munich Med. Woch., October 4.

[11] Wien. Med. Woch., 1897, No. 12.

ulcers in the form of compresses, cleanses them, removes the offensive odor and diminishes the seropurulent discharge. In this case formaldehyde is only a simple auxiliary means, which comes handy in those hopeless cases.

RECENT PHASES IN PSYCHIATRY.*

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CHICAGO.

When I first began the study of insanity I thoroughly and comparatively read several standard works on mental diseases, and after finishing them I had no clear comprehension of one single psychosis. It was only after much clinical study, in which no reference was made to text-books, that I gained any satisfactorily definite knowledge of mental diseases.

The confusion arising to the student from the many different bases for classification, and the consequently large number of terms for the different abnormal mental states is most bewildering. It has been said of the alienist that, when he thinks he has finished his studies, he constructs a classification. While I have not finished my studies, I, nevertheless, have been unable to find in a text-book a classification that for my own clinical use formed a practical working basis. I am not alone in this attitude, and yet when working side by side with men who chafed as badly as I under the yoke of this or that classification, we could not agree among ourselves as to a proper one. The classifications of no two authors agree in all important points. Different authors name over fifty different manias and as many melancholias. There must be something radically wrong about a science that finds its followers so far apart.

With the methods in use, clinical study of the insane offered but very slight inducement to the ambitious student. Observations as to the frequency and effect of intercurrent or concomitant diseases, consideration of the causal factors and experimentation with therapeusis seemed to give the only chance for the gaining of tangible results. Even these fields had been trodden almost bare by the alienists of the present century. There seemed to be no way, no means by which we could scientifically investigate abnormal mental phenomena, and thereby gain a clear comprehension of mental diseases. The methods in vogue enabled us to speculate, to philosophize, to theorize—to what end? Only to make a new classification representing one's individual ideas of mental pathology with which he could not hope that any other fellow observer would fully concur. The fault lay not with the observer, but with his methods of research.

For nearly two years, with a well-equipped microscopic laboratory and two assistants, I devoted almost my entire time to the study of the pathology of the insane, making in all over four hundred post-mortem examinations. Many interesting cases were thoroughly examined, and from the standpoint of the neurologist much that was important was brought to light, but comparatively little data was acquired that would help one to a better understanding of the true nature of mental disease. Nevertheless, we have a right to expect much from histopathology, but a marked improvement in laboratory technique will be necessary before any material advance can be made, and histopathology can never give an adequate foundation for the study of abnormal mental phenomena. It may, and undoubtedly will, help to explain clinical data, and confirm theories suggested by clinical observation by demonstrating the physical basis, for it will explain the end, but can not become a means to that end. The brain does not, gland-like, secrete thought. Thought being neither a secretion nor material, can not be examined by the methods of histopathology.

No professor would think for one moment of teaching diseases of the digestive organs to a class who did not have a fair understanding of the physiology of digestion. How many courses in mental diseases are given to-day, in medical colleges of the best repute, in which there is absolutely no reference made to the physiology of the mind? But a few days ago, on carefully looking over my synopsis of the course in mental disease which I give in the Northwestern University Medical School, a prominent neurologist and an experienced teacher made the single suggestion that he thought that I spent too much time in the rudiments. In the course, the first five lessons were devoted to the physiology of the mind, under the caption of "Mental Organization."

In considering the most prevalent methods of the study of insanity, we can not fail to notice that psychiatry shows, more clearly than any other branch of medical science, the effect of philosophic theorizing and the dearth of scientific research. Alone, the purely mental phenomena of insanity give a foundation for but little that is not speculative. Attempts to build up the science on such groundwork have brought to psychiatry a wealth of conflicting views that have bred a bewildering profusion of terms and classifications that still, to a certain extent, act as a barrier to helpful co-operation among alienists.

Of all sciences, the psychology of but two decades past was perhaps the most imperfect. Notwithstanding its having long been popularly classed with the natural sciences, if we understand a science to be related knowledge obtained by special research and accepted by the consensus of reliable specialists, psychology has not until recently merited the name of science. This want of consensus is most apparent. Even in fundamental points the manuals of psychology do not agree, while in the manuals of physics, geology or botany there is practical unanimity.

Psychology has until recently been little more than introspective speculation, often senseless and ridiculous. The elaborate webs of philosophy woven by the old school psychologists could, therefore, give no practical working basis to the alienist. However, as natural philosophy paved the way for and was gradually supplanted by natural science, so the philosophic abstraction of the psychology of a few years ago is fast giving place to the experimental scientific psychology of to-day. Since the founding of the first psychologic laboratory in Leipzig, in 1878, problems have been solved which the philosophic school regarded as unanswerable. The conflicting philosophies, as well as the traditions of the alienists, are now giving place to facts established by scientific investigation. Psychology as an experimental science refuses to depend on foregone metaphysical conclusions, and bases its investigations on demonstrable facts.

The reflex act is recognized as the fundamental element in all action, voluntary or involuntary, from the simplest motion to the most complicated performance. Every motion, every activity of animal life, from the simplest movements of the amebæ to the most compli-

*Read before the Chicago Academy of Medicine, May, 1899.

cated performance of the modern gymnast, from the suckling of an infant to the cogitations of a philosopher, has its type in the reflex act and employs essentially the same mechanism.

The essentials of nervous function are: 1, a stimulation, and 2, a response, a reaction; in fact, a motor effect. This we can not explain by purely physical laws. The simplest ameba has a certain capacity for nervous processes, as shown by its sending out pseudopodia and enveloping a grain which has been brought in contact with it, although there is not the semblance of a differentiation of nervous mechanism. Constantly repeated transmission of an excitation along the line of least resistance establishes conduction paths which become anatomically differentiated.

The frog from which the cerebrum has been removed will jump when pricked with an instrument, executing a simple reflex act only. If, however, an obstacle be placed in front of it, and it then be pricked, it will jump, but in such a way as to avoid the obstacle. The simple reaction to the prick has been modified by the intercurrent stimulus of sight of the obstacle, and the modified or resultant action is said to be an automatic act. An automatic act, then, is but the modification of a simple reflex act by a second stimulus. It is the resultant of two or more stimuli, and is a step farther in the progressive development of action. This advanced step is characterized by the correlation of two or more stimuli, but there is no conscious psychic correlative. In going down a stairway our every step is modified by intercurrent stimuli, yet we are not conscious of the fact.

We daily meet people for whom we automatically turn aside, without giving them a thought, but when one of those whom we meet happens to be a friend, we stop and greet him. It is plain that in this case our action has been modified by an intercurrent mental image stored up in the brain. Had it been our enemy, we might have turned away, but our memory tells us it is our friend. This is a so-called voluntary or conscious act, and is distinguished from the simple reflex and automatic acts by its having a conscious psychic correlative. The automatic reaction has been modified by the intercurrent mental image which the stimulus of sight passing into a higher level has called forth.

However, the conscious or voluntary act differs in no essential way from the automatic one. The brainless frog being stimulated, sees an obstacle in front of it, and therefore so modifies its jump as to evade the obstruction. Since early life the frog has habitually avoided obstacles found in its way. We habitually greet our friends. We meet a man and automatically change our course so as to give him his share of the walk, but when the sight of the man calls up the memory image of our friend, this mental image is correlated with the automatic reaction and modifies it and we greet him. Past experiences have taught us that the man we met was our friend. The only difference in these two acts is the different developmental levels used, as shown by the element of consciousness in the one case, and the absence of consciousness in the other. However, one is as fundamentally reflex as the other.

Conscious action, therefore, is only one step higher in the progressive development of action. Conscious action is often spoken of as voluntary, or action of the will, yet actions are not produced by the will. What we call will is but the resultant of the association of sensations received with the ideas gained from past experience. There is no special faculty of the will. A definite action must follow certain external stimuli and certain ideas according to an inevitable law of causation, just as a stone detached from its support must fall in a certain direction with a certain velocity.

The recognition and greeting of a friend is the type of all psychic function. The receiving of one or more sensations, the associating of them together with memory images or ideas and the resulting responsive action or inaction comprehends all psychophysical processes. There is no psychic process whatever that is produced by the operation of other elements than these.

Mental organization has been perfected by gradual development through untold generations, and is the resultant of heredity and culture acquired throughout ancestry. The plan of its structure and function is the simple structure and function of the reflex act. That which determines and orders the foot to be withdrawn when suddenly burned is fundamentally thought just as much as that by means of which the general determines to order a retreat when he sees the great destruction of his forces.

The disordered reflex act should, therefore, be the basis for the study of disordered mental activity. An exhaustive competent and careful study of conditions affecting the simple and automatic acts, and the consideration of the causes of increased and lessened irritability and sensibility, irregular movements, tics, spasms and convulsions, pareses, paralyses, in the lowest level, would establish a foundation absolutely essential to an intelligent and scientific study of mental disease and disorder.

The nervous system is developmentally divided into three stages: 1, that of the simple reflex arc; 2, the automatic act; 3, the conscious act; and is structurally and functionally divided into three corresponding levels. Will not a thorough understanding of hyperexcitability and convulsion in the two lower levels bid fair to go far in explaining the true nature of mania? Do not the lessened excitability, increased sensibility and neuralgic pains in the lower levels suggest the sluggish, supersensitive, painfully anxious melancholiac? Should the higher levels become paralyzed, would not the condition be dementia? Would not the counterpart for a habit spasm or deformity of movement be in the higher level a distortion or deformity of mind?

In the psychology of to-day, psychologic or laboratory psychology, the foundation for the study of the reflex act has already been laid, and much good work has been done. There have been collected records of tests and measurements on thousands of normal individuals, with respect to their powers of sense; the rate with which sensations travel to the brain; the rate with which motor impulses travel from the brain to the muscles; the accuracy of the senses; the time rate of the higher mental processes; the effect of many drugs; the effect of mental activity on the bodily processes, as well as the effect of bodily changes on the mental processes; the effect of fatigue and the poison engendered by fatigue; the problem of daily rhythm; the measurement of the strength of attention and the integrity, tenacity and readiness of memory. Many other studies along these lines have been and are being made in the psychologic laboratories of our greatest universities, and the results carefully recorded so that as far as normal persons are concerned, objective standards have been well established which will serve as a basis for comparison of tests and measurements on abnormal individuals.

The insane have been but little studied by such laboratory methods, yet the results obtained are definite and most instructive; for example, the simplest conscious reaction time measures, in the average normal individual, .162 seconds; the time for melancholiacs varies from .238 to .272 seconds, and in acute mania the reaction has been as prompt as .125 seconds. The complex association reaction time requiring the discrimination between the right and left hands is in the average normal individual .265 seconds, but in melancholia it is also markedly lengthened, one case reacting in .624 seconds, while in mania it is much more rapid than normal, one case reacting in .201 seconds. The comparison tests as to the voluntary motor ability are quite as striking. The data already acquired indicate that laboratory psychology bids fair to give to psychiatry more satisfactory results than any other field of research now opened up. In this country three hospitals for the insane are now using laboratory methods in the study of patients.

Psychology and psychopathology have developed scientific methods for conducting the experiments, observing the phenomena, and finding the facts that are essential to progress in psychiatry. It is to be regretted that psychology and psychopathology are too often confounded in the minds of many physicians, even many alienists and neurologists, with the different systems of metaphysics, mind cure, faith healing, "Christian Science," hypnosis, etc., and are, therefore, given little or none of their attention. There is no science that is more strictly scientific than the laboratory psychology of to-day, and there is no other tangible and firm basis for the study, treatment and classification of mental diseases that is broad enough to include the whole domain of not only psychiatry, but neurology as well.

DISCUSSION.

DR. JAMES G. KIERNAN—There are some points, in the paper of Dr. Stearns, which I can not commend too highly, while to others I must take decided exception. The influence of differences in classification have been decidedly overestimated. Between the classifications adopted by the Austrians, Germans, Italians, Russians, Scandinavians and those adopted by scientific American alienists there is practically no difference. America, England, Canada, Scotland and the British colonies are full, however, of alienists manufactured by the grace of a machine. To the classifications adopted by these, no scientific importance can be attached. Psychiatry does not differ as to the difficulties arising from classification from any other specialty. Difficulties noticeably occur in dermatology. The great difficulty is not in the existence of classification, but in the failure of those using them to grasp general principles which have formed a basis of classifications since the day of psychiatry. It must be admitted, however, that with the exception of most modern American and one Canadian text-book—that of Dr. D. Clark—English-speaking text-books are a wild chaos of individual egotism. Clouston has one classification, Savage has another. Blandford, the arch-type of the British philistine in psychiatry, has a prehistoric one. Bevan Lewis increases the chaos. As studies of individual psychoses, these text-books are of value. As enunciations of the general principles of psychiatry, they are worthless. Psychology is still too much in the dogmatic stage of alleged positivism to be of value; it has not yet demarcated between the normal and the abnormal. Even in regard to simple emotional psychoses, like mania and melancholia, psychology furnishes no data, comparative in value with those furnished by clinical observation.

Mania has been shown to be simply an emotional exaltation and its consequences, melancholia, an emotional depression and its consequences. But neither the psychologists nor the so-called alienists by the grace of the machine, as yet, fully appreciate this difference. Pathology has made no advance sufficient to revolutionize the classifications enunciated by Meynert and his allies in Germany. Indeed, artefacts due to the action of absolute alcohol on the brain tissue are still alleged to be pathologic lesions, by the new school of pathologists, who have exhibited wonderful industry of late in revamping errors, exploded twenty years ago, as new discoveries. The fact that in many psychoses, findings must be negative, since these depend on biochemic change, is ignored. Secondary changes due to these biochemic alterations and found in but few cases are cited as lesions, albeit these lesions are not peculiar to psychoses. It can not be said that the overriden neuron hobby has been of much assistance. This glittering bubble seems to be on the point of bursting, to judge from the recent researches of Apathy and others.

I do not deprecate original research in psychiatry. Such research, however, is a mere Sisyphusian waste of time, unless based on a knowledge of what has been done previously. There is hardly a reform urged in psychiatric research to-day that is not urged from the old canting standpoint of exploded systems. If psychiatry is to be a science, it must be based on a proper union of biology, pathology, clinical observation, as well as physiologic psychology, cerebral anatomy and physiology and pharmacology. All attempts to base psychiatry on any other principles have failed in the past and will fail in the future.

DR. HAROLD N. MOYER—The question of classification has been one that has puzzled psychiatrists and alienists for generations, and yet it has always seemed to me that there was no essential difficulty in it. Nature does not make any classifications for us. These are artificial divisions and distinctions that we make. We classify matter into organic and inorganic; yet it is almost impossible to make such an actual division. We classify living objects into vegetable and animal, yet Nature makes no such division. These two classes shade into each other in exactly the same way as do mental diseases. The classification is arbitrary in many respects. We must have some classification or we would be hopelessly confused, and the simpler the classification can be made, the better is it as a working basis. If we approach the subject of classification in this way, and not as a fetish to be worshipped, then I think we can get a much more correct notion of it. We must recognize that any classification has some faults. Not infrequently one form of mental disease shades into another in an almost imperceptible degree; there are certain transition forms no one can place in a particular class. Different forms of mental trouble at different times during the progress of the malady constitute a tremendous difficulty.

I do not agree with my friend regarding the importance of experimental psychology as a foundation for mental disease, a position which he implies Dr. Stearns has taken in his paper. I do not understand Dr. Stearns in that sense at all, but rather, we are to use experimental psychology as a clinical aid in differentiating the different forms of mental trouble, in studying their progress, and in formulating a prognosis. I certainly believe that the exact methods of experimental psychology are destined to have a wide and fruitful application in clinical psychology. We are now on the threshold of important discoveries in the anatomy and histology of the nervous system, which are going to lead to fruitful results. I can not conceive of psychology or any other branch of medicine whose aim is not ultimately to put it on a pathologic-anatomic basis, but the data are not at hand to do so at the present time.

DR. W. X. SUDDUTH—I do not see, considering the scientific manner in which this subject has been handled, that there is much left to be said, still I can not wholly agree with the essayist in regard to his presentation of the subject. I do not see any reason why modern scientific methods should not to a certain extent lead to a new classification, because our old classifications to a large extent were based on clinical observation only, and in many instances defective clinical observation at that; empirical classifications entirely based on clinical observation can not stand the test of modern psychologic investigations and observations.

I like to have subjects brought before the Academy in this manner; I like to listen to a paper that shows thought, and shows that the writer has been engaged in an investigation which has evolved original work. To my mind the psychophysical aspect of investigation of mental diseases holds out more promise of beneficial results than the old histopathologic line of investigation. For years I have followed both methods of investigation, and while the older method gave rise to much labor, it furnishes very small results. The psychophysical investigation of the last decade has done very much more for those who are working in this field than any other previous method of investigation. I look forward to seeing yet more perfect results than have yet been obtained, results which will stand the test of clinical observation, as well as the test of the laboratory. With a thorough knowledge of the physiology of the mind, as well as of the brain, better results not only as to prognosis, but as to ultimate cure in regard to these derangements, may be expected. Knowing the cause of the condition we can outline treatment accordingly and secure more accu-

rate results. This rule applies not only to psychiatry but to other diseases as well.

While the essayist was reading his paper, a little confusion arose in my mind as to how he looked on the mind, whether he considered it as the intellectual result of brain activity alone, or whether he thought the mind could be looked on, not as the result, but as the cause of the perceptivity of reflex actions. It raises the old question as to which is first, the egg or the hen, a thing which we have to fight over in psychologic investigations as well as in biologic laboratory work.

The essayist did not use the word "unconscious," but he spoke of conscious activities. By using the words "conscious activities," he inferentially leads us to suppose that he believes in unconscious activities. I have dropped the word "unconscious" from my vocabulary. I have no use for it any more. I use the term "subjective consciousness" or "sub-conscious," because I am fully convinced that there is no such thing as an unconscious action. The stream of consciousness is continuous, and nerve-fibers and filaments are incidents in the process of intellectual function; wherever this stream of consciousness, whatever it may be, is directed, in time nerve-fibers and nerve conductors will be differentiated.

I take little or no stock in the neuron theory which has been advocated. Conscious activities pervade the whole organism; each and every cell of the body is a separate entity, and there need not necessarily be any physical relationship between them, although there is a psychic continuity which connects the whole body as an organ, making it one co-ordinate machine.

I have had some experience along this line of investigation, in teaching patients with progressive locomotor ataxia the use of certain groups of muscles that have become paralyzed as a result of the destruction of the motor paths in the spinal cord. It is not new with me, however. I forget who it was, but I believe some one in Vienna, who was the first to bring out that line of work. In several cases, in one of which the disease was of twelve years' standing and progressive, where I felt sure an autopsy would demonstrate that the destruction of the motor paths in the spinal cord was more or less complete, the individual was given a picture of the movements desired by suggestion, and movement was brought about and the limbs regained their activity, lost in the previous course of the disease. This and other similar cases seem to substantiate the premise I hold, i. e., of consciousness being independent of nerve processes.

The point raised by Dr. Moyer, as to the difficulty of making close distinctions as applied to nervous conditions, is one which I have held, and which seems to me to prove the necessity of some general classification that can be adopted, leaving differentiations for individual cases.

DR. KIERNAN—With reference to the point urged by Dr. Sudduth, in regard to locomotor ataxia, it must be remembered that there is often a functional loss of power resultant on temporary disuse. I can not agree with Dr. Sudduth as to consciousness being always existent.

Psychiatry and physiologic psychology alike justify the view of Ribot, that the ego is a co-ordination. It oscillates between two extreme points—perfect unity and absolute inco-ordination, else it ceases to be—and all the intermediate degrees exemplified without any line of demarcation between normal and abnormal, health and disease; the one trenching on the other. Wherefore the ego in the psychologic sense is the cohesion, for a given time, of a certain number of clear states of consciousness, accompanied by others less clear, and by a multitude of physiologic states which, though unaccompanied by consciousness, are not less, but even more effective than the conscious states.

The physical substratum of the ego is that essentially outlined by Spitzka, more than twenty years ago. Meynert, a decade previously, had called attention to the presumptive physiologic rôle of certain arched fibers, which are known to unite adjoining as well as distant cortical areas with each other. The chief factor on which the higher powers of the human brain depend, is less cortical development, as such, than the immense preponderance of the white substance, due to the massive associating tracts. Although the projecting tracts are also larger in man than in any other animal, yet so great is the preponderance of the associating mechanism that the elimination of the former would not reduce the white substance of the hemisphere by one-half its bulk. Both projecting and associating fiber masses increase in a nearly geometric progression from the lower animals to man; but the ratio of progression of the associating fiber masses exceeds that of the projecting tracts. There are certain convolutions which are almost exclusively connected with fibræ arcuati; that is, with associating tracts, and which enjoy but little direct connection with the bodily periphera. Such cortical areas, so connected, play an important rôle as a substratum of the abstractions. Such cortical areas and their subsidiary associating tracts, bound into the still higher unity of the entire hemisphere, constitute the substratum of the metaphysician's ego. A disturbance of the intricate relations which are involved in the material basis of the ego must be accompanied by a disturbance of the ego, or may even render it an impossibility. It is on accurate connection of projection or as with projection areas, and of these with "abstraction" areas, that the faculty of logical correlation depends. Correction of the countless errors made during a lifetime is possible only by an influence analogous to inhibition, exercised by the association fasciculi. The proper aim of every true educational system is to develop this control of the various cortical screens on each other, a correction which, with approaching maturity, is delegated to the "abstraction" field.

If it follows, therefore, that, as pointed out by Herzen, the conscious mental process betrays an imperfection of the cerebral organization, for it indicates the presence of a new unusual activity which deranges the equilibrium, the innate or previously acquired automatism, and which does not find a well-formed mechanism ready to discharge it, the conscious mental process is the transitory phase of an inferior to a superior cerebral organization. It expresses novelty, incertitude, hesitation, groping, astonishment, imperfect association and incomplete organization, a want of promptitude and exactness in transmission, a loss of tenure in the phenomena of reaction. It indicates that the nervous paths are not sufficiently cleared or distinctly enough traced, to permit without destruction in the final effect, reflex movements or reflex ideational sensations.

DR. SUDDUTH—I must disagree with Dr. Kiernan, in saying that my remarks concerning suggestion in the treatment of locomotor ataxia are foreign to the paper. A writer in the *Medical Record* has published his clinical observations on consciousness during anesthesia, and he relates the case of a patient who was conscious during the administration of the anesthetic. It has for years been my observation that I could keep in touch with the patient during the administration of anesthesia; the patient may retain consciousness of what is going on, yet at the same time have no sense of pain. In a paper for the Illinois State Medical Society, I take up the subject of consciousness as related to psychophysical culture, showing how it is that the stream of consciousness has a connection with the development of muscle, and also with the acquirement and the control of habits when once formed. But I am positive that there is no such thing as a state of unconsciousness in this life, and, I believe, while it may not be pertinent to the subject, that after this life there is a higher state of consciousness than the one experienced here. Psychophysical investigation has already positively demonstrated that there is no such thing as a state of unconsciousness, and that within a few years the word "unconsciousness," will be generally eliminated from the vocabulary of scientific investigation on the subject, and become obsolete as related to bodily processes.

DR. STEARNS, closing the discussion—I do not wish to put forward physiologic psychology as the only method by which we can study insanity, but to emphasize the fact that the methods of investigation that have been elaborated in the study of psychology, in the school established by Wundt, are capable of being used to a large extent in the study of the insane, and of becoming a most important and essential aid to a correct understanding of abnormal mental states. Future research by the use of psychopathologic methods will give us data that will finally serve as an enduring basis for a truly scientific classification.

PRELIMINARY REPORT OF ANTERIOR TRANSPLANTATION OF THE ROUND LIGAMENTS FOR DISPLACEMENTS OF THE UTERUS.

BY ALEX. HUGH FERGUSON, M.D.

PROFESSOR OF SURGERY, CHICAGO POST-GRADUATE MEDICAL SCHOOL.

CHICAGO.

The patient is prepared for a laparotomy in the following routine way: The day previous to the operation the bowels are well emptied by means of small repeated doses of calomel, or better still, by castor-oil. Sulphate of strychnia, 1-30 gr., is given every three hours. The patient is given a bath, and the skin of the abdomen thoroughly cleansed with soap and water and alcohol.

The pubes and external genitals are shaved and cleansed in the same way as the abdomen.

Operation.—The patient is put under the influence

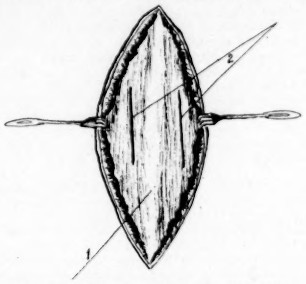

Fig. 1.—Skin retracted, showing linea alba and anterior sheath of recti muscle. 1, linea alba; 2, lateral incisions on either side of linea alba. Woman in Trendelenburg's position.

of ether and placed on the table. The skin of the abdomen is well cleansed with soap and water and a brush; then washed with alcohol, and then with a so-

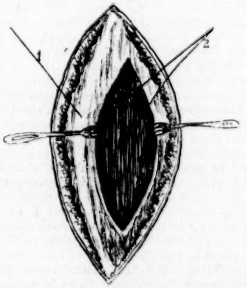

Fig. 2.—Skin and right sheath of right rectus muscle retracted and the fibers of the muscle exposed. 1, linea alba; 2, sheath of rectus retracted.

lution of bichlorid of mercury. The genitals and vagina are treated in the same way. The patient is now placed in the extra-lithotomy position with the

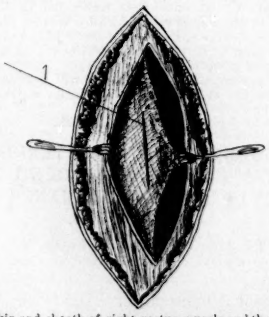

Fig. 3.—Skin and sheath of right rectus muscle and the fibers of the right rectus retracted, exposing the posterior sheath of the right rectus and the transversalis fascia and the peritoneum. 1, line for incision through the posterior sheath of rectus muscle and transversalis fascia and peritoneum.

thighs well flexed on the abdomen. The vagina is, when deemed necessary, next dilated with a speculum and the anterior lip of the os is seized with a tenaculum forceps and the whole uterus brought well down. The os is now gradually dilated and the uterine cavity thoroughly curetted with an irrigating curette. After this the uterine cavity is packed with iodoform gauze, the gauze removed, and a 95 per cent. carbolic acid solution applied to the interior of the uterus by means of a swab at the end of a probe; then the uterine cavity is again packed with iodoform gauze, the gauze is again removed, and a sound is passed into the uterus. This sound is kept in during all the operation, by an assist-

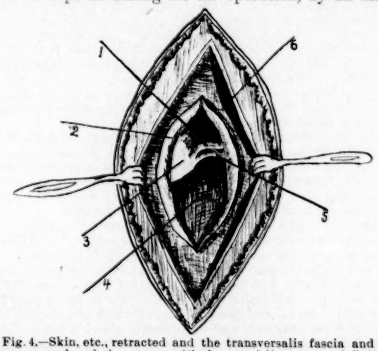

Fig. 4.—Skin, etc., retracted and the transversalis fascia and peritoneum opened and the uterus, with the round ligament and Fallopian tube, exposed to view. 1, round ligament in front of tubes; 2, posterior sheath of transversalis fascia and peritoneum; 3, uterus; 4, general peritoneal cavity; 5, fibers of muscle; 6, Fallopian tube.

ant who presses the end outside of the vagina downward toward the perineum so as to keep the fundus of the uterus well up against the anterior abdominal wall. The patient is now placed in the Trendelenburg position and the skin of the abdomen again well cleansed. Aseptic sterilized towels are placed all around the abdomen leaving only the lower half of the abdomen ex-

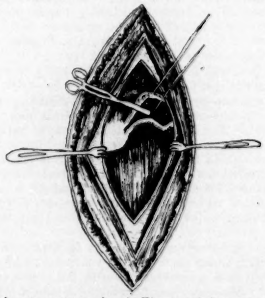

Fig. 5.—Skin, etc., retracted as in Fig. 4, and the same view. A suture is put through the broad ligament.

posed to view. A skin incision about three inches long is made in the median line, beginning about an inch and a half from the symphysis pubis. The knife is carried through the skin and fat superficial fascia down to the linea alba. The skin, fat and superficial fascia are now retracted with retractors as seen in Fig. 1, exposing to view the linea alba and the anterior sheaths of the recti muscles on either side. The anterior sheaths of the recti muscles are now opened by incisions about two and a half inches long on either side of the linea alba, and about an inch from the median line.

We now deal with each side separately. The anterior sheath of the rectus muscle is now retracted and the muscular fibers of the rectus muscle exposed, as seen in Fig. 2. The muscular fibers of the rectus are now pushed to the outer side of the wound and well retracted, together with the anterior sheath. On pushing aside these muscular fibers of the rectus outward, the posterior aspect of the rectus with the transversalis fascia and peritoneum are brought into view, as seen in Fig. 3. The structures posterior to the rectus muscle—the transversalis fascia and peritoneum—are now opened about an inch and a half. The edges of this

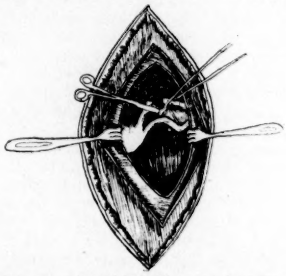

Fig. 6.—Skin, etc., retracted as in Fig. 4, and the same view exposed. Here we have the round ligament sutured at one end and held by the forceps and cut.

opening are drawn well apart by blunt retractors and the uterus, which is being pushed well forward by the sound, is now brought into view. The Fallopian tube and the round ligament lying in front of it are also seen, as in Fig. 4.

The next step is to seize the round ligament, about an inch from its attachment to the uterus, by a forceps, and separate it from the Fallopian tube by drawing it well forward. In doing this the broad ligament is also brought up, as seen in Fig. 5. A suture is now

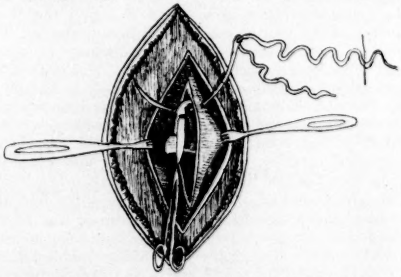

Fig. 7.—Suturing broad ligament and round ligament to transversalis fascia and peritoneum behind the rectus muscle.

passed external to the forceps through the broad ligament, but below the round ligament, as seen in Fig 5. The round ligament is then divided between the forceps and the ligature, which is tied, and that end of the round ligament is dropped into the peritoneal cavity, as seen in Fig. 6, and the suturing begins. The proximal end held with the forceps is now drawn well out of the peritoneal cavity with its accompanying portion of the broad ligament. The retractors are withdrawn from the peritoneum and placed beneath the rectus muscle and its anterior sheath, and the skin, on the outer side; and the anterior sheath of the rectus and skin on the inner side. When the retractors are withdrawn from the peritoneum and transversalis fascia, then the structures posterior to the rectus muscle, the transversalis fascia, etc., are allowed to fall into their natural position, and then it is found that they are on either side of the broad and round ligament, as these ligaments are drawn out of the peritoneal cavity. These ligaments occupy the upper part of the wound in the peritoneum, etc., as seen in Fig. 8. The round ligament, with its portion of the broad ligament, is now

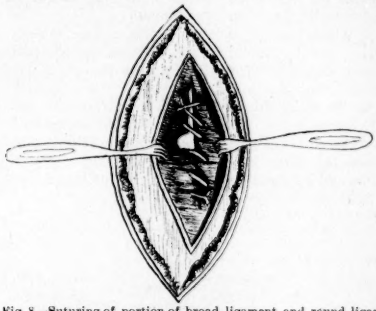

Fig. 8.—Suturing of portion of broad ligament and round ligament to transversalis fascia and peritoneum completed.

sutured to the peritoneum and transversalis fascia, as seen in Fig. 8.

The rectus muscle is allowed to recede into its former position. The end of the round ligament, being brought around the border of the muscle or through its fibers, is secured to the anterior sheath of the rectus by means of the continuous suture which closes the wound in it. (Fig. 9.)

The same procedures are now carried out on the other

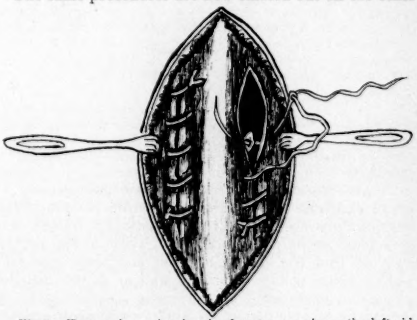

Fig. 9.—Here we have the sheath of rectus muscle on the left side closed and the right side being closed. Notice the end of the round ligament being caught in one of the sutures.

side, and after that the skin incision is closed in the usual manner. (Fig. 10.) The material used for the buried sutures is chromoform catgut, No. 1.

EPITOME.

1. A skin incision in the median line, three inches long, is made, beginning one and a half inches from the symphysis pubis.

2. The linea alba and anterior sheath of recti muscles is exposed, and an incision made on either side through the anterior sheath of the recti.

3. The rectus muscle is retracted outward, and an

incision is made into the peritoneal cavity directly behind it through the transversalis fascia and peritoneum.

4. The round ligament and portion of broad ligament is seized with forceps one inch from its origin, tying the round ligament and broad ligament external to the forceps and dividing between.

5. Dropping the tied distal end of the round ligament into the peritoneal cavity and lifting the proximal end well out of the wound into the peritoneum.

6. Fixing the round ligament and its accompanying portion of the broad ligament to the wound in the transversalis fascia and peritoneum.

7. Replacing the fibers of the rectus muscle and closing up the wound in its anterior sheath with continuous catgut suture, which grasps the cut end of the round ligament.

8. The other side is operated on in the same manner.

9. Closing the skin incision. The anterior transplantation of the round ligaments for uterine displacements has many advantages over former procedures. The round ligaments and their portion of broad ligament

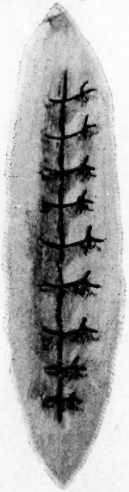

Fig. 10.—Wound of the skin closed with interrupted sutures.

afford excellent material together while the round ligaments alone are too frail and elastic for reliable and permanent anchorage of a uterus. There are no sutures inserted into the uterus and no adhesions can take place between it and abdominal wall as in the ordinary suspension operation. The organ is suspended free in the pelvis, capable of motion, sufficient to accommodate itself to a distended rectum or bladder, without inconvenience. On physiologic grounds it is inconceivable that pregnancy would be interfered with by this operation, and for a hernia to follow is utterly impossible. It affords ample opportunity to suspend healthy ovaries, and to remove diseased ones. In short, many pathologic condition in the pelvis may be treated through the abdominal incisions. It is sure to hold the uterus in place without the annoyance of the dragging pains which so frequently accompany Alexander's operation and modifications of it.

In the twenty-two cases operated on, in two and a half years, by the method above described, ideal results have been obtained. One became pregnant and went on to a normal termination.

10 Drexel Square.

Clinical Report.

CASE OF INJURY TO URETER DISTAL TORN END GRAFTED INTO THE BLADDER.

BY L. H. DUNNING, M.D.

INDIANAPOLIS, IND.

March 2, 1899, I operated on a patient giving the following history: She had been confined seven weeks previously, at full term, her confinement being followed by fever and evidences of sepsis. She had to keep to her bed continuously from the time of her confinement until admitted to St. Vincent's Hospital, February 28. There were all the physical signs of a pelvic abscess on the right side.

On opening the abdomen the uterus was found pushed far to the left side of the pelvis. The omentum lay over an abscess of the right broad ligament. It was greatly thickened and the inferior portion attached to the anterior abdominal wall in front, and to the bladder, right horn of the uterus and upper portion of the right broad ligament, so that to expose the abscess the overlying omentum had to be separated from its attachments. On removal, this portion of the omentum was found to contain several minute abscesses, so it was ligated and cut away. It was observed that the bladder wall was greatly thickened and contained many minute abscesses over an area from which we had peeled off the adherent portion of the omentum.

In our manipulations, the broad ligament abscess was accidentally ruptured. Fortunately the general peritoneal cavity was protected from infection by layers of compresses. In cleaning out the abscess cavity, the right ureter was completely severed an inch from its insertion into the bladder. An examination showed that the ureter was displaced so that it ran over the upper surface of the wall of the broad ligament abscess. Its walls were much thickened and the diameter of its lumen considerably increased in size. No method of ureteral anastomosis could be considered, as the proximal severed end was imbedded in dense inflammatory tissue. Fortunately the ureter was considerably elongated, so that when loosened from its bed beneath its peritoneal covering, the distal severed end could be brought to the bladder without stretching.

A sound was passed through the urethra into the bladder, pushed against the posterior upper wall of the bladder to the right of the median line. An incision was then made through the walls of the bladder, meeting the point of the sound, which was carried through the incision into the pelvic cavity. The point of the sound was then carried into the severed end of the ureter, when, with two Halstead forceps seizing the end of the ureter on each side, this end was slipped along the sound through the incision in the bladder. The sound was withdrawn and the incision in the bladder walls snugly closed around the ureter.

The ureter was made secure by stitches passed through its outer coats and through the bladder walls at the edge of the incision. These stitches were of fine silk and, when tied firmly, anchored the ureter in the bladder. Iodoform gauze was loosely packed in the abscess cavity and around the entrance of the ureter

into the bladder, the free ends being brought out the lower angle of the abdominal incision.

Before returning the patient to bed, a soft rubber catheter was fastened in the bladder, and kept there four days. The packing was removed from the pelvis the fourth day.

The patient made an uninterrupted recovery. There was never any leakage of urine at the point of the graft. Aside from the presence of a sinus leading from the lower end of the abdominal incision into the pelvic cavity, which was closed after about three weeks, the patient made a perfectly normal recovery and has remained well to this time. There have been no symptoms pointing to any lesion of the urinary tract.

Therapeutics.

Rheumatoid Arthritis.

In this disease it is necessary to resort to cholagogues and alkalies, but instead of salicylic acid or colchicum, arsenic should be administered in some form and continued indefinitely. Given in as large doses as can be tolerated, and by carefully studying the effects of the drug and the judicious use of laxatives it is possible to guard its administration so that a tolerance for large doses can be established—a result much to be desired in order to secure the maximum benefit. Enormous doses of arsenic can be given hypodermically, and it is then much less toxic than when given by the mouth. The arsenate of sodium is free from any objection for hypodermic use. Fowler's solution is objectionable: it invariably causes much irritation and frequently forms an abscess.

Iodids are of some value, and many times serve as useful adjuvants to arsenic in the treatment of this disease. Recently some of the guaiacol derivatives have been highly recommended, particularly benzosol, guaiamar and guaiacol carbonate. It is, of course, necessary to consider general hygienic measures: massage, hot-air baths, change of climate, flannel next the skin, careful diet, etc.

The following for an arsenical bath has been recommended:

℞. Sodii arseniatis.....1-8 gm.
Sodii bicarbonatis.....100-150 gm.

For each bath.

When there is excessive pain and irritability, Stevenson recommends baths at 92° to 94° of ten to twenty minutes' duration, through which the galvanic constant current is passed. The alternating current may also be used.

Treatment of Gonorrheal Rheumatism.

Archibald E. Garrod says, in discussing the treatment of this disease, that the first object in its treatment is the cure of the urethral discharge in which it has its origin; with this end in view the ordinary remedies should be applied both by the mouth and in the form of injections.

With regard to the medicinal treatment of the disease little can be said that is at all encouraging. The salicylic drugs and colchicum alike are without appreciable effect upon the articular lesions, and lapse of time is the chief means of cure. Iodid of potassium is the drug which is most relied on, and he is in the habit of giving a mixture containing quinin with an alkali, together with the iodid and he believes that this line of treatment is by no means without good effect. If the pain be severe, opium may be administered. In severe cases the inflamed joint may need a splint, and the application of an ice-bag usually affords relief. When the effusion into the articular cavity is very abundant, paracentesis may be called for; and in the rare instances in which a joint suppurates, further surgical interference will of course be required.

The great tendency of the formation of fibrous adhesions must never be lost sight of; if the joint be put on a splint, care must be taken that if ankylosis should result, the limb may be fixed in as advantageous a position as possible. Although complete recovery of the affected joints is the rule, at least in the milder cases, some degree of stiffness often remains, which calls for passive movement under an anesthetic; the minor degrees of residual pain and stiffness may often be got rid of by a course at some mineral water resort where external treatment is carried out. It is, of course, only from the external application of mineral waters that any results can be looked for.

The following prescriptions will be found efficient in the treatment of gonorrheal rheumatism:

℞. Ung. belladonnæ
Ung. hydrargyri, āā.....℥i
M. Sig. Apply externally to the affected joint and bandage snugly.

℞. Guaiamar 3ii
Ung. belladonnæ
Ung. hydrargyri, āā.....℥iv
M. Sig. To be rubbed freely into the joint, which is then covered with cotton and bandaged.

℞. Guaiacol
Glycerin, āā.....℥ss
M. Sig. Apply to joint, cover with cotton and bandage as directed above.

ACUTE ARTICULAR RHEUMATISM.

The writer's treatment of acute articular rheumatism is briefly as follows:

1. *Cholagogues.*—During the course of this disease there is invariably defective functional activity of the liver, the secretion of bile is lessened, it is increased in viscidity and there is lessened alkalinity, if indeed, the reaction of the fluid is not actually acid. The vegetable cholagogues should be selected and a combination similar to the following may be prescribed:

℞. Euonymin
Leptandrin, āā.....gr. ¼
Pulv. ipecac.....gr. 1/10
Podophyllin .....gr. 1/8
M. Ft. pil No. i.

A pill of this size should be given three times a day. The dose of each ingredient, however, may be diminished or increased according to the effect on the patient, it being necessary to secure two or three free bowel movements a day. The administration of remedies of this character should be continued throughout the course of the disease and well into convalescence.

Together with cholagogue medication the patient should be immediately put on alkaline-salicylate treatment. Sufficient alkalies should be administered to thoroughly alkalinize the patient, so that the urine, saliva, and sweat will become neutral or alkaline in reaction. This condition should be maintained during the entire course of the disease. Various alkalies may be employed for this purpose, prescriptions for various combinations being given below.

Simultaneously with the exhibition of these medicaments salicylic acid or the salicylates should be given. Salicylic acid undoubtedly shortens the duration of the disease, reduces temperature, and lessens the pain and swelling of the joints, but has no influence in preventing cardiac complications or relapses, and, in the writer's opinion, should never be relied on to the exclusion of alkalies and cholagogues. The greatest benefit can be derived from the salicylates when they are used early in the disease and in heroic doses at comparatively frequent intervals—not less than 20 grains every two, three or four hours during the first two days. If too serious gastric and cerebral symptoms manifest themselves, the drug may be decreased in amount or discontinued until the unpleasant action subsides.

The following prescriptions will give the reader an idea of various combinations of these remedies:

℞. Acidi salicylici
Sodii bicarbonatis, āā.....℥iss
Glycerini .....℥iss
Aquæ menthæ pip., q.s., ad.....℥iv
M. Sig. Tablespoonful every two hours for the first day, then every four hours.

℞. Potassii acetatis.....℥ii
Acidi salicylici.....℥iv
Syrupi limonis.....℥ii
Aquæ menthæ pip.....℥viii
M. Sig. Tablespoonful every three hours.

℞. Sodii salicylatis.....5v
Syrupi aurantii cort.....℥iv
M. Sig. Dessertspoonful every four hours.
℞. Sodii salicylatis.....5iss
Sodii phosphatis.....3ii
Sodii bicarbonatis.....3ii
Aquæ menthæ virides.....℥iv
M. Sig. Tablespoonful every four hours.
℞. Antipyrin.....3ii
Sodii salicylatis.....3iii
Ammonii bromidi.....3iv
Aquæ cinnamomi.....℥iii
M. This prescription is recommended by Eshner in acute and subacute rheumatism in which considerable involvement of the muscles and great pain exist. It should be given in teaspoonful doses every three or four hours.

S. Solis-Cohen recommends the following in the acute form and in those predisposed to anemia:
℞. Sodii salicylatis.....3iv
Tinct. ferri chloridi.....3iv
Acidi citrici.....gr. x
Glycerini.....℥ss-iss
Olei gaultheriæ.....m. x-xxx
Liq. amnon. citr. (B.P.), q.s., ad.....℥iv
M. Sig. Dessertspoonful every two, three, four, or six hours.

The following prescription may be employed for the same condition:
℞. Acidi salicylici.....gr. x-xx
Ferri pyrophosphatis.....gr. v
Sodii phosphatis (crys.).....gr. l
Aquæ.....℥ss
M. Sig. At a dose.

Satterlee recommends the following alkaline mixtures:
℞. Potassii bicarbonatis.....3ii, ℈ii
Aquæ.....℥vii
M. Sig. One fluidounce of this solution to half an ounce of fresh lemon juice. To be taken while effervescing.
℞. Lithii benzoatis.....5ss
Sodii bromidi
Potassii carbonatis (pura), ää.....3ii
Potassii acetatis.....℥iss
Sodii phosphatis.....℥ss
Syrupi zingiberis
Aquæ menthæ pip, ää, ad.....℥vi
M. Sig. Two teaspoonfuls to a tablespoonful in a half glass of water, every four or six hours, after food.

It may be necessary to resort to one of the antipyretics, antipyrin, phenacetin, etc., for the reduction of persistently high temperature. Care, however, must be exercised in the administration of these remedies, to avoid cardiac and general depression. Digitalis or strychnin or both may be given with the antipyretic if the heart is weak. In addition to the influence of the antipyretics on the temperature they act as analgesics and serve to allay much of the pain from which the patient suffers. Should the pain be so severe as not to yield to the action of these drugs, it may be necessary to resort to an opiate; morphin or atropin may be given hypodermically, or a combination like the following is very efficacious:
℞. Morphinæ sulphatis.....gr. ¼
Potassii bromidi.....gr. xxx
Chloralis.....gr. xx
Syrupi aurantii cort.....3ii
Aquæ, q.s., ad.....℥i
M. Sig. Take at one dose, at 9 or 10 p.m. During the active course of the disease the patient should drink freely of alkaline mineral waters and of lemonade should he desire it.

More or less comfort may be derived from topical applications to the affected joints, the following having been used with varying success:
℞. Acidi salicylici.....3iv
Olei gaultheriæ
Olei terebinthinæ, ää.....3ii
Lanolin
Adipis, ää.....℥iv
M. Sig. Apply to joints with friction.
℞. Guaiacol
Glycerin, ää.....℥i
M. Sig. Apply and cover with tissue.
℞. Acidi salicylici.....3v
Chloroformi.....℥iv
Linimenti saponis.....℥vii
Alcoholis.....℥iii
M. Sig. Apply by means of steeped compresses and cover with oiled silk.
℞. Tinct. aconiti
Tinct. arnicæ, ää.....3iv
Linimenti belladonnæ.....℥i
Linimenti chloroformi.....℥iii
M. Sig. Apply externally as directed.

Hare recommends the following:
℞. Veratrini
Hydrarg. iodidi virid, ää.....3i
Petrolati.....℥i
M. Sig. Apply over joints affected.

Or, as Hibbing suggests:
℞. Salol
Etheris sulphurici, ää.....3i
Collodion.....℥i
To be applied around the joints.

Spongiopilin or lint or gauze steeped in a hot saturated solution of sodium bicarbonate and sprinkled with tincture of opium, exerts a very soothing effect when applied to the affected joint. Hancock advises 4 per cent. solution of carbolic acid applied warm on flannel, while Fraunfelter claims that heavy towels wrung out of ice water, wrapped about the joint and covered with flannel will afford immediate relief.

When the active inflammatory symptoms subside, alkaline and sulphur baths and judicious massage serve a useful purpose.

The complications, hyperpyrexia, pericarditis, endocarditis, pleuritis, etc., are to be treated according to the usual methods.

During convalescence it may be necessary to administer bitter tonics, either alone or associated with iron, strychnin, quinin or arsenic.

Lactic Acid in Leucorrhea.

In an article by Sneguirey in *Jour. de Med. de Paris*, attention is called to the use of lactic acid in neutralizing infectious bacteria in the vagina. He demonstrated that douches containing 3 per cent. of lactic acid quickly deodorized and diminished the discharge, besides changing its color.

It was found also that lactic acid, either pure or in solution, caused an abundant desquamation of epithelium when applied to the cervix or to the cavity of the uterus, and led to a cure of endometritis or endocervicitis with ectropion.

Treatment of Gonorrheal Myositis.

The only method found effective in two cases reported by Braque, in *Bulletin Med.*, 1898, 194, was the application of moist heat after all other measures had failed. The member was wrapped in compresses wet with a solution of boric acid heated to 35 C. covered with rubber cloth and cotton, renewed as often as they cooled. If the pain persisted, partial baths at 30 to 35 C. relieved it. As soon as the acute stage has passed, the macerated skin can be painted with equal parts oil of guaiacol and oil of sweet almonds. By the end of fifteen to twenty days the affection has entirely retrogressed.

Excessive Perspiration of the Feet.

R. Adler considers that all other methods of treatment have only historical interest since the advent of formalin and tannoform. He explains their action and advocates them warmly in *Deutsche Med. Woch.*, October 5, confirming the recommendations of formalin for this purpose by other writers noted in the JOURNAL. He paints the sole with formalin once a day, and the spaces between the toes he powders with tannoform, if formalin can not be supported. If both sole and toes are affected, he combines the two, painting also the under surface of the toes with the formalin. Care must be taken not to inhale the fumes of the formalin as it produces unpleasant sensations in the mouth, nose and conjunctiva. If there are any signs of maceration the tannoform must be used alone until entirely healed, when the formalin should be applied.

Current Medical Literature.

Titles marked with an asterisk (*) are noted below.

Annals of Surgery (Philadelphia), November.

1.—*Forcible Correction of Angular Deformity Resulting from Spinal Caries. Edward H. Bradford and Robert H. Vose.
2.—*Blastomycetic Dermatitis (Pseudo-Lupus Vulgaris, Saccharomycosis Hominis, or Pseudo-Epithelioma with Blastomycetes). John E. Owens, Daniel N. Eisendrath and C. F. W. Ready.
3.—*Some Remarks on Symptoms of Bronchocele and Results of Operative Treatment. Francis J. Shepherd.
4.—*Results Obtainable in Treatment of Some Post-Paralytic Deformities. Jacob Teschner.
5.—*Successful Removal of a Fibrosarcoma (Desmoid Fibroma) of the Abdominal Wall, Involving the Iliac Vessels. A. I. Bouffleur.
6.— Sarcoma of the Stomach. F. Y. Cantwell.
7.— Report of Case of Congenital Inguinal Tele-Lymphangioma of Large Size, with Remarks on Congenital Tumors of Childhood. Estella M. Riley.
8.— Actinomycosis in Man, with Special Reference to Cases which have been Observed in America. John Ruhrah.

American Gynecological and Obstetrical Journal (N. Y.), November.

9.—*Fractures and Other Injuries of the Child during Delivery. David J. Doherty.
10.—*Incontinence of Urine; Report of Peculiar Case. Emil Ries.
11.— Ovarian Cyst with Twisted Pedicle; Report of Case. Reuben Peterson.
12.— Treatment of Cystocele and Uterine Prolapse after the Menopause. J. T. Watkins.

Canadian Practitioner and Review (Toronto), November.

13.— Ophthalmology and the General Physician. G. Herbert Burnham.
14.— Acute Diabetes. A. F. McKenzie.

Southern Practitioner (Nashville, Tenn.), November.

15.— Mastoiditis. Hillard Wood.
16.— Hydronephrosis with Movable Kidney. Richard Douglas.

Medical Compend (Toledo, Ohio), November.

17.— Landmarks of the Digestive Tract. Byron Robinson.
18.— Nematoid Parasite known as Myorykites Weismanni, Inhabiting Muscles of Frog, Rana Temporaria. D. E. Haag.
19.— Creasote and its Derivatives in Treatment of Pulmonary Tuberculosis. John North.

New Orleans Medical and Surgical Journal, November.

20.— Neurility: Is It a Vibratory Motion? Ralph Hopkins.
21.— Muscular Anomalies. Henry D. Bruns.
22.— Chronic Asthenic Gastritis. D. Bornio.

Medicine (Detroit, Mich.), November.

23.—*Treatment of Goiter. A. I. Bouffleur.
24.—*Remarks on Diagnosis of Locomotor Ataxia. Hugh T. Patrick.
25.—*Acute Frontal Sinusitis. Henry L. Swain.
26.— General Surgical Anesthesia and Anesthetics. Ernest J. Mellish.

Brooklyn Medical Journal, November.

27.— Notes on Tubercular Kidney and Post-Operative Anuria. J. O. Polak.
28.—*Interesting Case of Heart Disease. C. Chase.
29.—*Traumatism of the Calvarium and Its Contents. G. G. Hopkins.
30.— Remarks on Modern Foot-Clothing. B. B. Mosher.

Medical Register (Richmond, Va.), September.

31.— Yellow Fever in Virginia. Chas. M. Hazen.
32.— Preservatives in Fresh Milk. James M. Whitfield.
33.— Report of Case of Labor Complicated by Puerperal Convulsions in Smallpox. William Hoskins, Jr.
34.— Peculiar Monstrosity. R. H. Garthright.
35.— Glycerin as a Sterilizer of Vaccin Lymph. E. C. Levy.

Georgia Journal of Medicine and Surgery (Savannah), October.

36.—*Shall We Operate in Every Case of Appendicitis? Virginius Harrison.
37.—*Some Experience with Cancer of the Womb. S. C. Baker.
38.— Some Experiences in a Country Practice. W. L. Story.
39.—*Cancer of the Breast. Samuel Lloyd.
40.—*The Rights and Wrongs of the Medical Witness in Courts of Justice. James B. Baird.
41.— Albuminate of Iron. L. H. Watson.

St. Paul Medical Journal, November.

42.— The True Professional Spirit. James E. Moore.
43.— Epidemic of Typhoid Fever in the 15th Minnesota Regiment. W. A. Dennis.
44.—*Uterine Deviations. William E. Ground.
45.—*Epidemic Cerebrospinal Meningitis. Henry M. Bracken.
46.— Complete Ligamentous, Partially Osseous Union Between Upper and Lower Maxillæ, with Adhesions of Cheeks; also Severe Ectropion of both Lower Eyelids with Occlusion of Lachrymal Ducts. Oscar A. Fliesburg.

Medical and Surgical Bulletin (Nashville, Tenn.), October.

47.— Tuberculosis of Mammary Gland, with Co-existing Carcinoma C. C. Warden.
48.— Hodgkin's Disease with Report of Case. E. G. Wood.
49.— Gynecologic Clinic. M. C. McGannon.

Buffalo Medical Journal, November.

50.— The Student in Medicine. Wm. H. Heath.
51.—*Report of Operative Treatment of Several Cases of Frontal and Maxillary Sinusitis. Frank W. Hinkel.
52.— Suphrenic Abscess. Prescott LeBreton.
53.—*House to House Operating. Edwin Ricketts.
54.— Duty of General Practitioner toward the Specialist. E. L. Moone
55.— Pen Pictures of Malaria. Nelson W. Wilson.
56.— Tracheotomy for Croup. C. A. Ellis.

Quarterly Journal of Inebriety (Hartford, Conn.), October.

57.—*A Note on the Influence of Maternal Inebriety on the Offspring. W. C. Sullivan.
58.—*New Phase of Criminal Morphomania. T. D. Crothers.
59.— Is There any Causative or Etiologic Relation Between Extensive Use of Alcoholic Drinks and Continued Increase of Epilepsy, Imbecility and Insanity? N. S. Davis.
60.— Professional Doubts Concerning the Existence of Hydrophobia H. D. Didama.
61.— Toxicity of Tobacco and Method of Eradicating It. Heinrich Stern.
62.— Alcohol on the Mind. A. Forel.
63.— Heredity as a Causative Factor of Inebriety. F. C. Myers.
64.— Legislation for Inebriates in Great Britain. Norman Kerr.
65.— Can the Dangers and Evils from Alcohol be Taught Successfully in Common Schools? Edward C. Mann.

Chicago Clinic, October.

66.— Additional Report in Case of Vaginal Atresia. E. H. Lee.
67.—*Normal Saline Solution: When to Use It; How to Use It. A. P. Heineck.
68.— Surgical Importance of Cervical Lymphatics. F. R. Sherwood.
69.— Gynecologic Clinic. Geo. W. Newton.
70.— Proctologic Clinic. J. R. Pennington.
71.— Stricture of Lachrymal Duct. H. W. Woodruff.
72.— Reflections on Anatomy of Inguinal and Femoral Hernia. W. T. Eckley.
73.— West Side Hospital Training School. Annie H. Byrne.

Illinois Medical Journal (Springfield), November.

74.—*Post Hoc Propter Hoc. W. T. Chenoweth.
75.—*Observations on Operation of Symphysiotomy. H. McKennan.
76.—*Maternal Impressions. Henry F. Lewis.
77.—*Caput Obstipum Musculare. M. L. Harris.
78.—*Imbrication Operations for Radical Cure of Hernia. E. Wyllys Andrews.
79.—*Operative Treatment in High Degrees of Myopia. Allen T. Haight.
80.— Case of Severe Tetanus Successfully Treated by Baccelli's Method. B. B. Griffith.

Dominion Medical Monthly (Toronto), October.

81.— Movable Kidney. F. B. Wilkinson.
82.—*Surgery Among the Insane: Its Difficulties, Its Advantages, Its Results. A. T. Hobbs.
83.—*Why the Undefending Pelvis. Ernest Hall.
84.— Case of Perityphlitic Abscess. Fred Parker.

Kansas City Medical Index-Lancet, November.

85.—*Nuclein Therapy in Typhoid Fever. J. M. Latta.
86.— Importance of Elimination as Shown by a Case Specimen. C. Lester Hall.
87.— Grip. Thomas R. Thornton.
88.— The Ovaries. Byron Robinson.
89.— Review of Recent Advances in our Knowledge of Anatomy and Physiology of Nervous System: Examinations. John Punton.

Memphis Medical Monthly (Tenn.), November.

90.—*Use of Tuberculin Preparations in Treatment of Tuberculosis. Llewellyn P. Barbour.
91.— Difficulties in the Diagnosis of Hernia, Simple and Strangulated. Thomas H. Manley.
92.—*Some Complications Met With Before and After Operations for Hemorrhoids: Their Causes, Prevention and Treatment. John L. Jelks.
93.— Some Personal Pickings at the Chicago Meeting of the Mississippi Valley Medical Association. John L. Jelks.
94.— Report of Two Interesting Surgical Cases. O. S. McCown.
95.— Case of Puerperal Eclampsia Treated by Both Old and New Methods. Frank Bates.

Indiana Medical Journal (Indianapolis), October.

96.—*Temperament and Disease, or the New Humoral Pathology. Albert E. Sterne.
97.—*Rest Cure for Consumption. Walker Schell.
98.— Headaches: Their Causes and Treatment. David W. Stevenson.
99.— The Modern Idea Regarding Tuberculosis. Carl Proegler.
100.— Hemorrhage in the New-Born. J. G. Kinneman.

St. Louis Medical and Surgical Journal, November.

101.— Squamous Palmar Syphilide. A. H. Ohmann-Dumesnil.
102.— Collective Reports of Glycerinized Vaccin Lymph. A. C. Barnes.
103.— Derangement of the Liver and Disease. J. S. Moremen.

Pediatrics (N. Y.), November 1.

104.— Contribution to Study of Cardiac Overstrain in the Young. F. J. Poynton.
105.— Successful Case of Splenectomy for Rupture. George Heaton.
106.— Case of Acute Infantile Hemiplegia, with Recovery. James Priestley.

Medical News (N. Y.), November 11.

107.—*Advance in our Knowledge of Typhoid Fever. Herman M. Biggs
108.—*Eye Complications of Typhoid Fever. Alvin A. Hubbell.
109.—*Anglotripsy. Clement Cleveland.

New York Medical Journal, November 11.

110.—*Bath Treatment in Typhoid Fever. H. E. Ballard.
111.—*Relation of Pathologic Conditions in the Ethmoidal Region and Asthma. Clinical Phases. Clarence C. Rice.
112.—*Relation of Pathologic Conditions in Ethmoid Region of Nose and Asthma. Clinical Phases. E. Fletcher Ingals.
113.—*Pathology and Therapy of Cancer, with Special Reference to Cancer of the Stomach. Augustus C. Bernays.

114.—*Notes on Urethral Catheterism, Catheters and Bougies. J. W. S. Gouley.
115.— Brain Fatigue. R. Ellis.
116.— Treatment of Epididymitis. Robert C. Kenner.

Philadelphia Medical Journal, November 4.

117.—*Surgical Commission Man and Surgical Canvassing. G. Frank Lydston.
118.—*Local, Nonsurgical Treatment of Intestine in Typhoid Fever. DeLancey Rochester.
119.—*Report of Case of Hypernephroma of Kidney, with Description of the Clinical Symptoms, Operation and Pathology of this Class of Tumors. L. L. McArthur and Daniel N. Eisendrath.
120.—*Surgical Treatment of Perforation of Bowel in Typhoid Fever. W. W. Keen.
121.— Report of Case of Acute Cholecystitis Apparently Following Influenza. F. A. Packard.
122.—*Proper Closure of Aseptic Surgical Wounds. Willard Bartlett.
123.—*New Solution of Iodin for Local Application. C. A. Elsberg.
124.— Case of Tetanus Treated with Tetanus Antitoxin and Carbolic Acid. G. W. Wagoner.
125.— Case of Funnel-Chest. F. W. Larrabee.

Philadelphia Medical Journal, November 11.

126.—*Mammary Gland Therapy in Gynecology. John S. Shober.
127.—*Asexualization as a Possible Prophylactic of Increase of Crime, Idiocy and Insanity. D. R. Brower.
128.— Pathogenesis of Appendicitis. A. O. J. Kelly.
129.— Ectopic Gestation, with Report of Some Interesting Cases. J. M. Johnson.
130.—*Pathology and Therapy of Cancer with Special Reference to Cancer of the Stomach. A. C. Bernays.
131.—*Treatment of Yellow Fever by Use of Potassium Bitartrate and Salol. Edward F. Nunez.
132.—*Nomenclature: Myotonus—Normal Muscular Tone: Hypomyatonia—Hypotonia or Fränkel's Sign; Hypermyotonia—Kernig's Sign.

Maryland Medical Journal (Baltimore), November 11.

133.— Robert Liston, Surgeon. W. B. Platt.

Medical Record (N. Y.), November 11.

134.—*Ten Years' Experience with Typhoid Fever at the Roosevelt Hospital. W. H. Thomson.
135.—*Electricity in Respiratory and Cardiac Failure, with a Case of Paralysis of the Diaphragm. A. D. Rockwell.
136.—*Etiology of Scarlet Fever. Harry O. Hall.
137.—*Iodid of Potash in Treatment of Acne. Fred J. Leviseur.
138.—*Entrance of Air into the Circulation. J. D. McPherson.
139.— Fracture of Arm in a New-Born Child. Charles H. Holzhausen.
140.— Starvation Edema. Annie H. Patterson.
141.— The Hand as an Obstetrical Instrument. J. Hunter Wells.
142.— Septic Infection and Obstinate Hiccough during the Puerperium. William F. Barry.

Cincinnati Lancet-Clinic, November 11.

143.—Management of Face Presentations. Magnus A. Tate.

Boston Medical and Surgical Journal, November 9.

144.— Criminal Abortion with a "Dying Declaration." F. W. Draper.
145.— Case of Ptomain Poisoning. H. G. Blake.
146.— Report of Medico-Legal Autopsies. Frederick H. Baker.
147.—*Analysis of Cases of Eclampsia Occurring in Boston Lying-In Hospital During last Fifteen Years. F. S. Newell.
148.— Case of Uterine Fibroid. George H. Washburn.
149.— Case of Ovarian Cyst with Twisted and Strangulated Pedicle. W. L. Burrage.

Medical Review (St. Louis, Mo.), November 11.

150.—*Contribution to Etiology of Pompholyx. Martin F. Engman.
151.— Abscess of Lung. William Potter.
152.— Plea for Early Operation in Appendicitis. A. M. Hayden.

AMERICAN.

1. **Correction of Spinal Deformity From Caries.**—This paper commences with a general statement and analysis of a large number of cases compiled by Vose, showing actual results of the procedure of straightening the spinal column. The method suggested is that of using moderate force over the projection, by means of a specially devised frame, but a still simpler method and one more easily improvised is also described and illustrated. It consists simply in partially suspending the patient by a bandage extending over the back so that the weight of the whole trunk rests on one point, that of the spinal deformity. After-treatment will have to be, in every case, with a plaster jacket or similar apparatus. The authors object to the use of the term "forcible" correction of Pott's disease, and instead suggest the use of the phrase, "rectification of the curve."

2. **Blastomycetic Dermatitis.**—Owens, Eisendrath and Ready report an additional case of this affection, occurring in a woman aged 38, with microscopic and pathologic findings. The ulcer was removed by clean dissection and healed by skin grafting. The paper is illustrated and also contains a general discussion of the subject and cases heretofore reported.

3. **Operation for Goiter.**—This paper reports several cases of operative treatment of bronchocele. It is the custom of the author to advise operation in all rapidly growing goiters, especially if they be tumors of solid form. As to operation in true Grave's disease, he does not think it so beneficial, and the operation itself is not without danger in these cases.

4. **Post-Paralytic Deformity.**—Teschner insists on the value of educational exercises in post-paralytic deformity, and reports and illustrates a number of cases. He thinks that his exercises demonstrate the value of this method and the inefficiency of massage and electricity alone in cases of this kind. Wherever the nerve connections have not been completely destroyed, he believes the facts show that the impaired muscles can be made to functionate by intelligent and persistent treatment by the physician who has studied their action and function.

5.—See JOURNAL, September 30, p. 820.

9. **Fractures and Injuries During Birth.**—The purpose of this paper is to point out a class of dangers that not rarely complicate and impede birth. Its importance is far from slight, and the author refers to the awkward misconstructions and criticisms, as well as the danger of damage suits, to say nothing of the misfortune to the child from these injuries. He enumerates the class of injuries that may occur, aside from asphyxia, during delivery, such as depression and fracture of the cranial bones; rupture of sutures and of sinuses; hematoma and rupture of various soft tissues—especially the sternocleido muscles—paralysis of facial and other nerves; fracture of vertebræ, jaw, ribs, humerus, clavicle, scapula, pelvic bones, femur, tibia and fibula; separation of epiphyses of these bones; dislocation of shoulder and hip-joints; rupture of sigmoid flexure; rupture of liver and other internal organs. These are most likely to occur in breech presentations, particularly induced or secondary ones. Doherty gives an extensive literature of these injuries and goes into details as to the resisting power of the different bones and parts to fracture or rupture. After delivery the babe should be carefully examined, especially if extraction or liberation of the arms was practiced, as injuries too frequently pass unnoticed or are attributed to later causes. He mentions the method of treating them when they occur, especially adapted to the condition and age of the child, and concludes by saying that the chief motto of the obstetrician should be "make haste slowly." Most of the accidents of obstetrics are due to interference against the judgment of the physician.

10. **Incontinence of Urine.**—Ries reports a case of incontinence occurring after marriage, due to coitus, and relieved by an operation displacing the meatus and putting it out of the way of injury or interference.

23. **Treatment of Goiter.**—The conclusions of Bouffleur's paper are as follows: 1. Successful treatment depends on accurate and early diagnosis of the nature of the goiter. 2. Struma should be treated by internal use of iodin or thyroid extract and the intraparenchymatous injection of iodoform or carbolic acid. 3. If these fail, either enucleation or partial thyroidectomy is indicated. 4. Adenoma should be treated by enucleation if the tumor is small, and by partial thyroidectomy if of large size. 5. Cysts should be treated by evacuation and injection of carbolic acid solution or iodoform emulsion. 6. If this fails, they should be enucleated. 7. Sarcoma and carcinoma should be treated by complete removal of the thyroid gland, with subsequent administration of thyroid extract. 8. The treatment of exophthalmic goiter is generally unsatisfactory, and at the present time surgical measures promise the best results. 9. Undifferentiated goiter may be treated by thyroid extract and iodin, but intraparenchymatous injections, and if necessary operative treatment, should be employed early. 10. The surgical treatment of all varieties of chronic goiter is, generally speaking, the most successful and most satisfactory.

24. **Diagnosis of Locomotor Ataxia.**—Patrick enumerates various symptoms which should be looked after by the physician in examining spinal disease with special reference to the existence of locomotor ataxia. They are: 1. Loss of knee-jerk. 2. Argyll-Robertson pupil. These two are the chief ones in importance. 3. Fulgurant pains. 4. Vesical disorders. 5. Analgesia of the legs. 6. History or evidence

of specific disease, not too recent. 7 and 8. Ocular symptoms. 9. Atypical pains and paresthesiæ. 10. Zone of pain at mammillary level, present in about 80 per cent., but not an early symptom. 11. Analgesia of the ulnar nerve. 12. Absence of normal pain on pressure of testes. 13. Gastric crises. 14. Diminished sexual power when psychic influences have been excluded. 15. Impairment of the muscular sense. 16. Ataxia. 17. Persistence of painful impressions, especially in the legs. 18. Muscular hypotonus and insensibility to pressure.

25. **Acute Frontal Sinusitis.**—Swain describes the symptoms of acute catarrhal inflammation of the frontal sinus, and suggests as treatment: relieving general constitutional conditions, and reducing tendency of blood to the head. A saline cathartic is almost always indicated. Locally, try to keep the nostrils free and secure free drainage. If seen early, ice may abort the inflammation. Hot-water bags externally may be of use, and blood letting performed early, spraying with Seiler's solution if the nostril is stopped, cocain in extreme cases, under the direction of the physician exclusively, followed with the aqueous extract of suprarenal glands. Probing into the frontal sinus canal under the influence of these can be done by the medical attendant, and if polyps, granulation, etc., are found, they should be removed. Rarely in acute cases is an artificial opening indicated.

28. **Heart Disease.**—The case here reported by Chase is one of very extensive dilatation of the heart from endocardial disease with various other lesions. Its special points of interest are stated by him as follows: 1. The amount of cardiac disease a man can have and still suffer no actual pain. 2. The enormous capability of a heart to dilate and hypertrophy to gain enough strength to do its required work. 3. The existence in one heart of three regurgitant and two stenotic murmurs, there being at the same time no valve that is working quite satisfactorily. 4. The relation between the heart's strength and the loudness of the murmurs, showing how very true it is that loud murmurs often are much more desirable than weak ones. 5. That the indications for treatment of heart disease depend much more on the condition of the heart walls than on the existence of a murmur over one or more of the different valve areas.

29. **Head Traumatisms.**—Hopkins reports several cases of injury to the cranium, some of which are of interest. In one case a 32-caliber bullet was fired into the forehead with suicidal intent, the ball entering the middle of the frontal bone about an inch above the root of the nose, passing directly backward. It could not be found, though the X-rays were employed, but the man made an uninterrupted recovery and was discharged six weeks after the injury. In a second patient the bullet entered the right temple just above the ear, but deflected, passed downward through the occipital bone into the thorax, and was lost in the abdominal cavity, and the patient survived three days.

36.—This paper was printed elsewhere; see JOURNAL, November 4, title 104, p. 1155.

37. **Cancer of Uterus.**—Six cases of uterine cancer are here reported, all in the advanced stage and therefore not amenable to successful treatment by operation, though it was attempted in most of them. The author offers the following suggestions: 1. Do not rely on pain or pronounced subjective symptoms to indicate the presence of malignant disease. If so, the knowledge may come too late to save the patient. 2. In cases of married women of child-bearing age coming under observation, when there has been absence of pregnancy for a number of years, say five or six, even though they do not complain of pelvic trouble, advise an examination, more especially if the patient has once borne a child. 3. Where there is lacerated cervix found, and the laceration has not healed, insist on its repair, as there is a justifiable belief that these lacerations are starting points of cancer. Treat uterine catarrh for the same reason. After labor, repair any laceration that may exist. 4. Where cancer is present, operate early, preferably by the vaginal route. If an abdominal section has to be made, and the uterus is so bound down as not to be lifted up at all from its bed, it is best not to attempt to remove it, but sew up the wound and let the woman get what comfort she can from the short time left to her.

39.—See abstract in JOURNAL, May 6, p. 998.

40.—See JOURNAL, May 27, p. 1148.

44. **Uterine Deviations.**—Ground argues against the operations for uterine fixation, maintaining that they produce abnormal conditions and that the displacements are not connected with the troublesome symptoms attributed to them. He agrees with the opinion of Winter and Theilhaber, that the symptoms usually referred to uterine displacement are due to independent diseases such as chronic inflammation in the pelvis, uterine catarrh, hysteria, neurasthenia and intestinal atony, and that the change in the position of the uterus is accidental and not responsible for them. He believes more good can be obtained in most cases, by reforming errors of dress, exercise, general and local treatment, etc.

45. **Epidemic Cerebrospinal Meningitis.**—After general remarks giving the opinions of the various authorities on the disease, Bracken concludes as follows: 1. We should not class all forms of cerebrospinal meningitis as of the true epidemic type. 2. We should not class cerebrospinal meningitis, occurring as a complication or sequel of certain epidemic diseases, such as typhoid fever, la grippe, pneumonia, etc., as epidemic. 3. We should be well guarded in diagnosing any given case as epidemic. 4. The prevention of error in diagnosing epidemic cerebrospinal meningitis should be avoided by a bacteriologic examination of fluid removed by lumbar puncture during life, when possible, or by post-mortem.

51. **Frontal and Maxillary Sinuses.**—Hinkel reports a case of empyema of the frontal sinus complicated with secondary antral disease, which was cured by the operation on the frontal sinus. He thinks that in this case there must have been drainage from the external wall of the nose into the corresponding antrum rather than into the anterior superior portion of the nasal chamber. The case, therefore, shows the difficulty of sometimes locating the source of a purulent nasal discharge. He also reports two cases of operation for chronic antral empyema, in which he followed the method of Luc, that is, after opening the antrum through the canine fossa, making a counteropening through the middle wall beneath the inferior turbinate and then closing the opening through the canine fossa by stitches through the mucous membrane.

53.—See abstract in JOURNAL, October 7, p. 912.

57. **Influence of Maternal Inebriety.**—The object of this paper is to present the results of certain special observations touching certain aspects of the question of maternal alcoholism as a factor in race degeneracy. Sullivan selected, from the female population of Liverpool prison, a series of drunkards who had borne children, and gives the deductions from a study of their history. So far as possible he selected cases free from other degenerative taints, so as to have the uncomplicated effects of alcoholism alone to consider: 120 female inebriates had borne 600 children, of which 265 lived over two years; 325 died under that age, including still-born. 21 of the women were able to give details of female relatives, sisters or daughters, of sober habits, who had contracted marriage with sober males and had borne children. The drunken and sober families contrasted as follows: drunken mothers, 21 cases, 125 children, of whom 55.2 per cent. died under the age of 2 years; sober mothers, 28 cases, 128 children, of whom 23.9 per cent. died under 2 years of age. He also studied the progressive effects of alcoholism on the children as showing the death-rate of the first, second, third, fourth, etc., born children, showing a decidedly rapidly increased percentage with each subsequent child. Of the children comprised in his series, 219 lived beyond infancy, and of these over 4 per cent. became epileptics. The effects of maternal inebriety are stated by him in the following general conclusions: 1. Maternal inebriety is a condition peculiarly unfavorable to the vitality and to the normal development of the offspring. Its gravity in this respect is considerably greater than that of paternal alcoholism. 2. While its influence, particularly as measured by the test of infant mortality, appears to be exercised in considerable degree indirectly through deterioration of the *milieu*, a large part depends on the primary action of the poison. The reality of this latter mode of influence is evidenced by the tendency to still-births and abortions, by the high rate of epilepsy in the surviving children, by the prevalent mode of death, by the effects of modifications

of the intoxication. 3. This primary influence of alcohol is due in part to the permanent effects of the poison on the maternal organism, inducing a transmissible degenerate condition; in part to a direct toxic action on the embryo, owing to continued excesses during pregnancy and lactation. 4. The first of these modes of primary influence is, by its nature, permanent, with a tendency to increase. The second mode, while tending also to a constant and constantly increasing operation, is susceptible of temporary augmentation or diminution. 5. Under these combined modes of influence the normal tendency of the family with alcoholic maternity is toward a type the inverse of the syphilitic family; that is to say, the first-born children are normal, then come more or less defective children who live beyond infancy, then children dying in infancy, then still-births, and finally abortions. 6. Deviations from this type are probably due in many cases to oscillations in the intensity of the second mode of influence. Deviations originating in this faction may be seen for instance in the death in infancy of the earliest-born children of the family, as a result of conception in drunkenness, and in the survival of the late-born children when the mother has been imprisoned during part of the pregnancy. A number of illustrative cases are reported more or less briefly.

58.—This article appeared under the title "Criminal Morphomania," in the JOURNAL of August 12.

67. **Normal Saline Solution.**—Heineck enumerates the following conditions in which normal salt solution is valuable: as a cleaning spray and douche in oral and nasal disorders; as a wash for wounds, skin graftings, etc.; in inflammatory fluxes; in surgical and puerperal infections; in malignant forms of syphilis that fail to respond to the usual treatment; in uremic poisoning; in puerperal eclampsia; in anemic patients before operation and in collapse during the same; in diabetic coma; in shock; in prolapse following large hemorrhage, and to combat the effects of hemorrhages generally, where it is the agent par excellence. He gives minute directions as to its use and the methods of administering by the rectum, subcutaneously, and by the veins. In the rectal injection sterilization is not necessary, in the others it is essential.

74.—See abstract in JOURNAL, May 27, p. 1172.

75.—Ibid, p. 1173.

76.—Ibid.

77.—Ibid, June 3, p. 1256.

78.—Ibid.

79.—This paper was printed in the JOURNAL of July 15.

82.—See JOURNAL, November 4, ¶ 100, p. 1217.

83. **Why the Unoffending Pelvis?**—Under this title Hall defends surgery in the insane, and claims that while the male and female inmates of asylums are about equal in number, the married males stand to the unmarried in the relation of 1 to 2, while these figures are reversed on the female side. This indicates that single men and married women have double chances of being insane and, therefore, the natural inference is that the difficulties following marriage are responsible for about half the insanity in women, hence, the justification of gynecologic surgery.

85. **Nuclein Therapy in Typhoid.**—Nuclein is indicated, according to Latta, in typhoid because it increases leucocytosis and thus adds to the resisting power of the cell structures in overcoming disease. As soon as he suspects typhoid, without waiting to insure the diagnosis, he commences to give protonuclein, usually giving large doses in the beginning, lessening the quantity until the system has responded to the treatment, the patient taking no other food nor medicine for two hours. At the end of the first half hour of this period, 4 to 6 ounces or more of hot water are given, and thirty minutes later the dose of nuclein, and then an hour allowed for absorption. In this way every three-hour period is divided into two parts, the first two hours devoted to nuclein and hot water and the last one to feeding and whatever other treatment may be indicated. In addition, the patient is allowed water at all times, preferably hot, and urged to drink it to the extent of a gallon or a gallon and a half every twenty-four hours. Frequently during the first twenty-four hours no benefit may be produced. The temperature and disturbing symptoms may increase. After that both will decline. The treatment is not an abortive treatment, still, it is not unusual to have a patient better on the eighth or tenth day than would be the case with the old method at the end of the third week. He does not trouble about any temperature less than 104, and has almost entirely discarded quinin and other antipyretics. He feeds the patient freely. No unusual rules in feeding are needed except that food is given only one hour out of three. As to the nature of the food, he follows the general directions in the text-books, though he feeds more freely than is commonly advised.

90. **Tuberculin.**—Barbour enters at length into the subject of tuberculin's advantages. He claims that its use has been demonstrated to be absolutely safe, and that it does exert a curative effect. As to what preparation to use, he says that the antiphthisin of Klebs and the purified tuberculin of von Ruck are the mildest, and he still uses them for cases with septic complications or with much temperature from any cause. For distinctly incipient cases he uses more toxic preparations, as they have the quicker effect. Koch's tuberculin R is, perhaps, the best of these. He has had decided success with these remedies notwithstanding the fact that he is aware that many good men deny their efficacy.

92.—See abstract in JOURNAL, October 14, p. 977.

96. **Temperament in Disease.**—Sterne offers as a classification of temperament applicable to conditions of disease the following three forms: the alkaline, the acid and the neutral. The first of these occurs in individuals where the general tendency is toward alkalinity and corresponds largely to the scrofulous or tuberculous diathesis. The acid is the opposite of this and includes the arthritic. The neutral temperament is what he considers the normal mean, special tendencies to disease not being present.

97. **Rest Cure for Consumption.**—Schell endorses the Murphy treatment of compression of the lungs with nitrogen injection, which he has used to great advantage in his practice. The immediate arrest of sharp pleural pains is one of the first things to attract attention. The fever also subsides almost at once; sepsis ceases and the cavities are closed by pressure, and where there is little disease of the free lung the patient is much more comfortable than before. The cough usually ceases at once or is superficial, appetite returns and in several of his patients he has seen an almost immediate gain in weight. After a few days or weeks respiratory movement of the compressed lung returns, though limited in all his cases. He has never used less than 85 cubic inches of gas, nor has he repeated the operation in any case. He has used it also to arrest troublesome hemorrhages that threatened life, and believes it a rational method in these cases. He does not think we should expect too much of this treatment. It can not altogether close lymph channels and blood-vessels, and therefore does not prevent the spread of the disease nor destroy the affecting bacilli, but it secures mechanical and physiologic rest, which is a great desideratum in many cases of the disease.

107.—See abstract in JOURNAL, November 4, p. 1165.

108.—Ibid, November 11, p. 1229.

109. **Angiotripsy.**—Cleveland, after a short historical sketch, describes the angiotribe of Tuffier and gives his experience with its use. He had been satisfied with Skene's electric clamp, but finds that this French instrument is in some respects an advance. He gives reports of twenty-four cases in which he has used it, and states its objections and advantages. Its advantages over the electric clamp are only its less expense and less difficulty in application. He still thinks the electric clamp safer for application to the upper or ovarian portion of the broad ligament when there are pus tubes. The precautions for the use of the angiotribe are, to manipulate the stump as little as possible after removal of the instrument, to apply it at right angles to the course of the vessels, and it is better to apply the instrument with the patient in the horizontal position. He has seen no case of crural phlebitis follow its use. There appears to be no danger of disturbing the clots in the arteries by ordinary necessary movements. The almost total absence of pain or any indications that a severe operation has been performed is the rule after the use of the angiotribe.

110. **The Brand Treatment.**—Ballard maintains that the

cold bath in typhoid is a perfectly practical method, and argues for its use. All that is required is a good trained nurse, a bath-tub and a neat clean room. He gives a bath about the temperature of the room every three hours when the temperature in the rectum reaches 102.2 or over, or 101.5 in the axilla. The principal contraindications are intestinal hemorrhage and peritonitis, and with this treatment, in the vast majority of cases there will be no call for a single dose of medicine. He reports a case in which he used the cold sponge and wet pack for five days without being able to reduce the temperature more than 1 to 2.5 degrees, and it finally reached 105.5 F., when the patient was again put into the tub with bath every three hours when necessary. This was continued for four days. The temperature did not rise above 102 and the patient made an uninterrupted recovery.

111. **Ethmoidal Region and Asthma.**—Rice's paper goes over the whole subject of nasal lesions in asthma. According to him it would seem necessary that when asthmatic symptoms coexist with ethmoidal disease, there should be present either nasal passages blocked with polypi, and hence mouth-breathing and a general catarrh, or else very acute chronic conditions which produce a neurotic asthma by vasomotor disturbances.

112. **Ethmoidal Region and Asthma.**—Ingals briefly reports several interesting cases showing the varied causation of asthma, the mere difference, for example, between the ground level and the sixth floor, the moving from one house to another, which in some cases have given relief. In one case the patient suffered from the disease in one part of a house, which was built partly of brick and partly of wood, and not in another. Still another case was reported where the attack was instantly cured in a young girl, by a fright.

113.—See below, ¶ 130.

114.—See abstract, p. 1293.

117. **The Commission Question.**—Lydston's paper is based on a letter which has been editorially referred to in our columns. He gives some of the answers received and comments thereon. He submits the question whether this practice is not dishonest.

118.—See abstract in JOURNAL, November 11, p. 1229.

119. **Hypernephroma of Kidney.**—McArthur and Eisendrath report a case of removal of a morbid kidney, with full pathologic description. The tumor appears not to have been actively malignant, though its resemblance to a possibly malignant growth is noted. The authors discuss the general subject of these tumors. In their case the result of removal of the kidney was complete relief, the opposite kidney apparently doing all the work satisfactorily.

120. **Bowel Perforation in Typhoid.**—This is an abstract of a paper by Keen, which is to appear in full in the JOURNAL.

122. **Closure of Aseptic Surgical Wounds.**—Bartlett concludes, after reviewing the subject, that in the light of recent teachings he would give silk the preference over catgut, and would use antiseptic instead of aseptic silk and impregnate his silk with silver citrate as the germicide offering the best warrant of results which may properly be termed ideal.

123. **New Application of Iodin.**—Elsberg recommends a 20 per cent. solution of iodin in equal parts of alcohol and ether as the best local application of this agent. He has in no case seen any iodin-poisoning from its use, and in one only did he obtain a well-marked iodin reaction in the urine. It has the advantage of rapidly drying, and only one coat need be painted on the part. He believes that therapeutic results can be obtained with it which can not be obtained with the much weaker official tincture of iodin commonly employed.

126. **Mammary Gland Therapy.**—First noticing the subject of gland therapy in general, and thyroid medication in particular, Shober remarks on the value of the mammary gland as a therapeutic agent in cases of metrorrhagia and menorrhagia, and in fibroid tumors as pointed out by Dr. Robert Bell. He tabulates nine cases of fibroids treated by this agent, and claims that in general the results have been more than merely satisfactory. The preparation used by him is from sheep, put up in tablet form, each tablet containing 2 grains; dose three to six daily. The mammary gland seems to act on the uterine muscle, either primarily or through its nerve-supply, increasing its contracting power and thus diminishing the blood flux to the mucosa and the tumor. He suggests the possible value of the combined use of the thyroid and mammary glands in these cases as being possibly more promising than either singly. He suggests caution and accurate diagnosis, where these are employed, that they may not be used ineffectually in cases requiring immediate operative interference.

127. **Asexualization.**—Brower reviews the facts in regard to the heredity and increase of criminal tendencies, as well as feeble-mindedness, insanity, etc., and suggests asexualization by ligation of the vasa deferentia or Fallopian tubes, as a remedy. In the criminal cases the accidental type may be excluded. For idiocy it should include all classes, and for insanity it might be limited to the degenerate types, using the term in the broad sense given by Kraepelin.

130. **Gastric Cancer.**—This article appeared elsewhere and was abstracted by us from the *Medical Sentinel* (see JOURNAL, August 12, ¶ 39, p. 405). It has since appeared in the *N. Y. Medical Journal*, as noted in this department (see JOURNAL, November 11, title 151, p. 1215; also above, title 113).

131. **Treatment of Yellow Fever.**—Nunez suggests the following treatment for yellow fever, which he has employed with success and can indorse. He begins it by giving the patient a dose of calomel followed by a saline purge, and then uses a solution of potassium bitartrate and fresh lime juice and the salicylate of phenol and salol, the latter preferably in tablets every two, three, four or six hours, according to indications. The cream of tartar renders the urine alkaline and stimulates the renal functions. It is also soothing to the stomach, relieving thirst and nausea, and by its laxative action insuring free movement of the bowels. The salol acts as an antiseptic on the intestinal tract and reduces temperature. The treatment is well borne by the stomach and kidneys, and tends to reduce albumin in the urine. No alcoholic drinks or nourishment are allowed in the first stage. The epigastralgia and rachialgia are treated exclusively by counterirritation with sinapisms. During the second stage the salol and cream of tartar and free use of diluent drinks, especially warm water with a few drops of lime juice, are continued until defervescence takes place.

132. **Nomenclature.**—Aldrich suggests the names hypomyotonia for hypotonia or Fränkel's sign and hypertonia for that of Kernig.

134.—See abstract in JOURNAL, November 11, p. 1229.

135. **Electricity in Cardiac Failure.**—The following is the summary of Rockwell's article: 1. Direct electrization of the pneumogastric and phrenic nerves calls into activity the physiologic functions of these nerves. In the case of the former the action of the heart is depressed; in the case of the latter respiration is accelerated and strengthened. 2. Percutaneous applications in therapeutic doses, especially with the faradic current, altogether fail to appreciably affect the pneumogastric, while the same method readily affects the respiration through the phrenic nerve. 3. In respiratory failure, therefore, whether due to the poison of opium, aconite, or in apparent death from drowning, electrization is a powerful antidote. 4. In heart failure from chloroform narcosis also, the faradic current is a legitimate method of resuscitation, by keeping up the respiration without depressing the heart.

136. **Scarlet Fever.**—The possibility of infection from animals, especially from milk, in producing scarlet fever, is dwelt on by Powell, and he gives facts which he thinks support this view.

137. **Iodid of Potash in Acne.**—Leviseur recommends the use of iodid of potash in resistant cases of acne, giving it in 5-grain doses three times a day, in milk. These produce a modified iodism, showing itself in urticarial lesions, and the urine gives traces of iodin. When this is done the iodin medication is stopped and local treatment is substituted.

138. **Entrance of Air Into Circulation.**—McPherson calls attention to the possibility of sudden death from entrance of air into the circulation, through careless use of syringes in uterine and other douches, in hypodermic injections, and from the entrance of gases in cases of typhoid ulceration, etc.

147. **Eclampsia.**—An analysis of the 90 cases of eclampsia

occurring in the Boston Lying-In Hospital, since 1885, is made by Newell. He analyzes the symptoms in detail, but does not venture to give theories as to etiology. Twenty-one cases were fatal, and he considers the prognosis always serious. The general treatment in these was emptying the uterus and elimination. Pilocarpin was used in 56, of which 5 died of pulmonary edema, illustrating the danger of giving this drug to unconscious patients. Morphin was given in 2, in 1/4-grain doses, but not with good results; he thinks it is contraindicated. Saline infusion was tried on 8 patients, 4 of whom died; 2 of these were *in extremis;* of the 6 where the treatment was thoroughly carried out, 4 seemed hopeless and it was used as a last resort; 2 of these recovered. He thinks it would be rational to use this method as a routine treatment.

150. **Pompholyx.**—Engman believes that pompholyx is due to a derangement of the vasomotor system, either functional or organic, based on some systemic conditions. He reports five cases. The first three were clearly due to toxins of the malarial plasmodium. Another was probably due to intestinal toxemia, and a fifth, which occurred in a physician, was due to errors of diet, producing toxic products in the system.

FOREIGN.

British Medical Journal, October 28.

Discussion on Preventive and Remedial Treatment of Tuberculosis. CLIFFORD ALLBUTT, WILLIAM BROADBENT and others.—In opening the discussion, Dr. Allbutt remarked on the heredity of tuberculosis or its predisposition, in which he still seems to have faith as an important factor in the origin of the disease in any individual case. The evidence of direct personal infection appears to him still curiously weak. The tubercle bacillus must speedily find congenial soil or it is probable that it soon succumbs; the long survival of individual bacilli is very dubious. Most tuberculous disease enters into the system by way of the throat, the bacilli being inhaled in the air and swallowed with the food. Direct infection of the skin is rare. He showed how the apex of the lung is especially vulnerable to the tubercular germs by its anatomic peculiarities, thus explaining why most cases of consumption originate there. Tuberculosis originating in other parts of the lung must be by an overwhelming invasion. In children the apex of the lung is less vulnerable, owing to the shortness of the bronchi in that region. He quoted statistics from Birch-Hirschfeld, showing that in 40 per cent. of 4000 autopsies taken consecutively tuberculosis was found, and in over 27 per cent. of cases dying from non-tuberculous diseases. He then explained how tubercle may be inclosed in lung tissue and no bacilli exist in the sputum. As to the diagnosis of early infection, it is of the greatest importance, as Turban's statistics show that patients treated in the very first stages are relieved, if not cured, to the extent of 84 per cent. Tubercle bacilli in the sputum is not a reliable test. Frequent examinations of temperature are better. Physical signs must be carefully looked after, and it is possible that the X-rays may be useful in showing the existence of early foci. Tuberculin seems to be almost a certain test in the early stages; the old tuberculin is preferred for this purpose. He next reviewed the sanatorium treatment and suggested that the personal influence and ability of the director may have a greater effect than is generally considered. Admitting that patients in the third stage of phthisis are probably incurable, that those in the second stage, or that of the physical signs of consolidation, can only be cured, if at all, by at least eighteen months of long and persevering treatment, it is seen that patients in the early stages alone, those often overlooked until too late, are the only hopeful ones for sanatorium treatment. He still believes in climatic advantages of alpine regions and high altitudes. The alleged overfeeding has received too much admiration; overfeeding can not be right, but high feeding is probably meant. It is interesting to see from Turban's tables that hereditary proclivity, other things being equal, is of no great importance in prognosis. Allbutt's own experience is that we may accept a long pedigree of ancestors with sound stomachs, and a gouty tendency is especially favorable to the arrest of the disease. The isolation from home and business is as important as in neurasthenia.

Dr. Williams finds that the mortality in London from phthisis is less in the regions immediately about the phthisis hospitals, where out-patients come every day with their indiscriminate habits of expectoration, than in other regions farther away, and he thinks that this speaks against the strongly contagious nature of the disease.

SIR HUGH BEEVOR stated that in London apparently about one-tenth of the population supplies one-third of the phthisis, and he called special attention to overcrowding as a cause.

Gelatinous Form of Sodium Biurate and Its Bearing on Pathology and Treatment of Gout. ARTHUR P. LUFF.—Luff's paper shows that from his experiments the higher the alkalinity of the blood from the presence of sodium bicarbonate, the more rapid and the more complete is the conversion of the soluble gelatinous biurate into the comparatively insoluble and crystalline form. In connection with this point it is instructive to bear in mind that mineral waters rich in sodium bicarbonate are well known to accelerate an attack of gout in many gouty subjects; and it is also of interest to here mention that from some observations he has been conducting for the past eighteen months, on the alkalinity of the blood of gouty patients, the results of which are not yet published, he has so far found in every gouty patient examined that the alkalinity of the blood is higher than the average alkalinity of the blood of healthy individuals, and since this increased alkalinity is due to a higher proportion of sodium carbonate or bicarbonate, it can be understood, in the light of the present investigation, why such blood is prone to hasten and to augment the formation of gouty deposits. On the other hand, it is seen that when the increased alkalinity of the blood serum is due to the presence of potassium bicarbonate, the conversion of the gelatinous biurate into the crystalline variety is delayed as to time, and is considerably diminished as to quantity, thus explaining the well-known beneficial effects of the alkaline potassium salts in the treatment of acute and subacute gout.

Experimental Contribution to Study of Gout. WILLIAM BAIN.—The author, from experimental investigation, finds: 1. That the methods in vogue for separating uric acid from blood are not sufficiently delicate for the detection of minute quantities. 2. That the phosphoric acid varies directly with the uric acid excretion, the patient being on a fixed diet. 3. That the alloxur bases in gout are not increased. 4. That colchicum does not seem to have any influence on the excretion of uric acid in gout. 5. That sodium salicylate and thymus increase the excretion of uric acid in gout. In the discussion, the value of the salicylates in gout was considered. Some found them of value, others not. In some cases they were considered directly harmful.

Relation of Pulmonary Tuberculosis to Mitral Stenosis. HUGH WALSHAM.—The rarity of mitral stenosis in cases of tuberculosis has been remarked, and some authorities have stated that the two conditions are incompatible with each other. Walsham finds that their coincidence is an extremely rare condition. In a thousand cases of well-marked pulmonary tuberculosis, he has had none displaying any of the signs of mitral stenosis, and in 130 post-mortem examinations of persons dying of consumption, he found well-marked signs of heart disease in twenty-one, but a typical mitral stenosis only once. He considers that many cases of the latter condition present signs which might well be taken for those of pulmonary tuberculosis, but their existing together is so rare a condition that no causal relation can be considered between them.

Form of the Chest in Phthisis and Its Significance. WOODS HUTCHINSON.—In this paper the author shows that an arrest of development in puberty appears to be a predisposing factor in tuberculosis. The tuberculous chest is deeper and narrower and longer than the normal. Instead of being flat, as usually described, it is long or coffin-shaped. He believes that out-door exercise, especially climbing, throwing, etc., is almost necessary for the proper development of the thorax.

Excision of Rectum for Cancer, by a New Method, and Its Results. THOMAS CARWARDINE.—The operation here described consists in a subperiosteal excision of the coccyx and fourth and fifth pieces of the sacrum, followed by median proctotomy and isolation of the gut below and on either side, and above with the presacral tissue and glands in continuity.

The lymph area is removed *in toto* with the growth. The union of the gut is made with silkworm gut sutures. The results as reported were almost perfect control of the bowels and flatus.

Lancet, October 28.

Mercury in Treatment of Heart Disease. ALEXANDER MORRISON.—The author calls attention to the value of mercury, especially in the chronic forms of heart disease associated with hepatic enlargement. It acts also as a powerful diuretic, as shown by Finkelstein and Landau, who find it especially useful when the cardiac dropsy is associated with non-valvular fatty disease of the heart. He concludes with mentioning the cases of syphilitic heart disease in which it is also of value.

Uncontrollable Vomiting Relieved by Laparotomy and Manipulation in a Case of Gastric Obstruction Due to Pressure of an Aneurysm. WILLIAM EWART and F. JEFFREY.—After reporting a case of uncontrollable vomiting due to obstruction by an aneurysm and relieved by laparotomy, Ewart reports an analogous case of duodenal obstruction by mesenteric traction, and discusses the mechanics of the condition. In cases of long-continued intestinal starvation, the intestinal channel may be absolutely empty and shrink both in length and circumference, and he suggests that this may possibly be a factor in the pathology of extreme cases of hysteric vomiting. We should bear in mind this possible cause in emaciated and exhausted subjects.

Annales del Circulo Medico Argentino (Buenos Ayres), July 21.

New Surgical Intervention in Peritoneal Tuberculosis. T. VARSI.—The author reviews the eleven methods of intervention on record, and observes that the response of Nature to a laparotomy by the formation of an exudate with an extremely agglutinative tendency is the cause of its success in these cases. As a very slight lesion is sufficient to cause the production of the exudate, he restricts the intervention to merely detaching the peritoneum from the abdominal wall after a median incision of 12 cm., and isolating it for a few centimeters around the wound, without opening it, taking up a fold between the finger and thumb to palpate its consistency, then sponging and suturing the abdominal wound. A case is described in detail; tuberculosis of the right apex and ascitic peritoneal tuberculosis. All the lesions were arrested by the intervention above described, and removal of fluid by puncture. Two years have elapsed, and the patient is practically cured, weighs four kilograms more than ever before, and the pulmonary lesions are still circumscribed.

Artificial Serum in Cure of Inguinal Hernia in Children. I. C. GARAYZABAL.—This modification of Lannelongue's sclerogenic method of treating hernia (see JOURNAL, xxvii, 270, etc.) consists in the injection of an artificial serum —sodium sulphate, 5 grams; sodium phosphate, 2.5 grams to 50 grams distilled water—instead of using a caustic and irritating substance. Injected around the inguinal ring it causes the obliteration of the hernial sac by adhesions of its serous surface, while it also proves a tonic for the muscles which form the ring. One c.c. at a time is injected, and a compressing bandage applied. Three or four injections with an interval of eight to ten days resulted in the complete cure of the hernia in each of the seven cases thus treated to date.

Bulletin de l'Academie de Medicine (Paris), October 10.

Tractions of the Tongue in Asphyxia of Toxic Origin. J. V. LABORD.—Further details are communicated in regard to the revival of the person asphyxiated with illuminating gas. (See JOURNAL, November 4, pp. 1162 and 1174.) A tooth was pulled out to enable the tongue to be seized, and tractions were continued for forty-five minutes before the subject was out of danger. In these cases the asphyxia is of toxic origin—not due to the suspension of respiration only, as in drowning —and the traction method must be continued until the heart recovers from the effect of the toxin, even after respiration has been re-established, as it may fail again. Laborde adds an instructive observation: an epileptiform vertigo induced by absinthe caused the fall of a young man into a canal. Rescued in a few minutes, traction of the tongue restored life, vomiting occurred, the veins of the neck swelled and the tractions were suspended. Injections of ether, frictions, etc., were then applied, but in fifteen minutes the cyanosis reappeared and death ensued. In all probability the final syncope—contraction of the heart—might have been successfully combated and the subject resuscitated a second time if the tractions had been recommenced. It is in this kind of recurring suspension of the heart function from toxic action that rhythmic tractions of the tongue promise to be peculiarly successful in restoring the heart function by reflex action. "Patience + rhythmic tractions = a life saved."

Progres Medicale (Paris), October 7.

Case of Dissecting Aneurysm of the Aorta. H. PELON. —This observation was an autopsy surprise, as the diagnosis of "ganglionary tumor" had been based on the absence of the characteristic sign of aortic aneurysm: there was no arching, expansive pulsations, thrill, murmur, nor elevation of the cross of the aorta, retardation of pulse, pupilary phenomena, no disturbances in the innervation of the recurrent, no pulsation shown by radioscopy, and no syphilitic nor malarial antecedents. The symptoms indicated a tumor in the mediastinum, dyspnea, wheezing, cyanosis, pertussis-like cough, distinct areas of dulness, symptoms aggravated on reclining. The patient, a robust teamster, caught cold and was sent to the hospital with the diagnosis of laryngitis stridulous. The eighth day the dyspnea and cyanosis had not increased, but the right radial and carotid pulse were no longer perceptible, and he died in a sudden attack of asphyxia. The enormous aneurysm found in the descending aorta was filled with fibrinous and resistant clots, very little fluid blood. It rested with all its weight on the right bronchus, but the recurrent nerve above was not affected. All through the aorta patches of endarteritis were evident, with irregular slits forming a communication between the cavity of the aorta and emptied atheromatous foci. One of the foci contained a few clots, thus forming a tiny dissecting aneurysm, which suggests the etiology of the large one.

Revue Hebd. de Laryngologie, etc. (Bordeaux), October 14.

Adenoid Vegetations in Relation to Infectious Diseases of Children. A. PLOTTIER.—A series of 268 cadavers of children was examined in respect to adenoid vegetations, and they were only found seven times in 54 cases of measles; once in 25 cases of gastro-enteritis, in 5 of scarlet fever, and in 12 of tuberculous meningitis; not at all in 5 cases of hereditary syphilis and 16 of athrepsia. On the other hand they were found 6 times in 27 cases of bronchial pneumonia, 5 times in 20 cases of pulmonary tuberculosis, thrice in 7 of whooping cough and 29 times in 53 cases of diphtheria. This proportion of 54.6 per cent. in diphtheria seems to indicate that the vegetations reduce the power of resistance and afford a *locus minoris resistentiae* while the receptivity for the disease seems to be augmented. They may be the primary seat of the lesion and escape notice. Possibly the catarrhal, latent or disguised forms of diphtheria may be traceable to this etiology, and also certain suddenly-appearing forms of croup, and even the invasion of the middle ear and nasal fossæ by the diphtheritic lesion. An attack of adenoiditis occurring in the course of convalescence from diphtheria may entail a relapse. "Methodical examination of the nasopharynx should be adopted for the rule in all cases of suspected or confirmed diphtheria." The necessity of operating *a froid* all adenoid vegetations in children, whether they cause disturbances or not, is strongly emphasized by these statistics.

Centralblatt f. Chirurgie (Leipsic), September 30.

Technic of Gastroenterostomy. M. RUTKOWSKI.—One of the most urgent indications in a gastroenterostomy is to at once supply nourishment to the patient, while the motility of the stomach in these cases is below normal and is still further lowered by the trauma of the operation. Rutkowski fills this condition by making a tiny slit in the stomach wall a few centimeters above the completed Woelfler gastroenterostomy. He then introduces a drain tube through this incision into the stomach, and through the stomach-intestinal fistula into the efferent loop of the jejunum, suturing the stomach wall around the tube according to Witzel's or Kader's method. He removes the tube after ten days and the drain fistula heals in about a week. This simple, harmless, rapid little operation does not in the least compromise the success

of the main operation, but relieves the stomach and enables the patient to be suitably fed from the start, and also prevents any crooking of the intestine. In three cases of cancer thus operated on the recovery of strength was remarkably rapid and no vomiting occurred in either.

Amputation of Prolapsus Recti. T. V. DEMBOWSKI.—The method of tying the prolapsed portion of the rectum around a thick bougie or stick to prevent hemorrhage during the operation is frequently the cause of constrictions later, as the stitches are taken in the compressed portion. Dembowski avoids this by passing a strong needle—about 25 cm. long and 4 mm. thick—through the prolapsed portion close to the base, in the direction from one tuber ischii to the other. The rectal walls are then spread out smoothly along the needle, and two iron rods the same length and thickness are applied each side of the needle and tied to it at each end, holding the prolapsed portion tight between them. The portion desired is then resected after cleaning and during constant irrigation, and the tissues sutured. One rod is removed at a time, and the vessels that start to bleed are ligated.

Deutsche Medicinische Wochenschrift (Berlin), October 26.

Study of Cumulative Action. L. LEWIN.—Every final action of a substance capable of inducing a reaction in the animal organism, presupposes an accumulation of single, small, preceding actions, as the final dilation of the cervix for delivery is only accomplished by many slight, consecutive stretchings. In certain diseases what we call the incubation stage is nothing but the stage of accumulating the small effects of a metabolic, i. e., a disease-toxin. Medicines act in the same way. Morphin only induces sleep by the accumulation of a great number of slight paralyzing impulses, as the blood carries the poison to the brain and then sweeps it away again immediately. Aside from the action of ferments and enzymes which can not be compared with medicinal substances, cumulative action is chemical or functional. The chemical action is due to solid combination of the substance with tissues or juices for which it has an elective affinity, or to the mechanical penetration of the substance into the tissues, or its clinging to them, or to the protracted lingering of the substance in the organism on account of special conditions of absorption and elimination. The syphilitic toxin, for instance, probably forms a solid combination with certain tissues, and is only again liberated by certain occasional changes occurring in the metabolism. In the intervals the toxin is neither destroyed, used up, nor eliminated. Chemical cumulation is the only explanation of its behavior, and this may be strictly regional. There can be no question of a functional emulation, as the periodic recrudescence of symptoms of syphilitic intoxication in the most various tissues and parts of the body, with no functional connection between them, positively indicates the presence of the toxin itself in the body. Toxic chemical cumulation from slow absorption and elimination of an otherwise harmless substance is responsible for many deaths, such as from administering digitalis every hour or two, when its action is slow in manifesting itself and lasts a long while. Iodoform, sulphonal, podophyllin and similar substances are included in this category. Functional cumulative action does not require the presence of the causal agent in the organism. Besides the purely local cumulative action, which is really the continuation of the primary desired action, there are drugs and toxins which long after they have left the body, still act indirectly as the primary purely functional or histologic alterations become transformed into others under the influence of metabolic toxins produced by the affected body. Such action is usually called "after-effect," but in fact it is nothing but true functional cumulation. Restitution usually follows chloroform or ether anesthesia, for instance, but there are cases in which regulation does not occur and death ensues after days or weeks, or an affection apparent even after months and years. Cumulative action of chloroform has been described as late as three years after its first application.

Essence of Diabetes Mellitus. H. LEO.—Research extending throughout the last twelve years has at last been crowned with comparative success, as Leo has finally experimentally confirmed his hypothesis advanced in 1898, that the insufficient combustion of sugar in the tissues and juices of diabetics in cases in which the pancreas is intact is due to a toxic agent circulating in the body, which checks the function necessary for the combustion of the sugar. Twelve dogs were injected with a tenfold concentrated urine—after removal of the urea—derived from three light cases and three moderately severe. The results were negative with the slightly diabetic urine, but always positive with the other. The mellituria induced in the dogs was not very pronounced; the amount of sugar varied from 2 to 3 per cent., and was in one case 8.3. Tests for dextrose were negative.

Muenchener Medicinische Wochenschrift, October 24.

Cardiac and Nervous Disturbances of Gastro-Intestinal Origin. F. JESSEN.—Three out of Faucher's five cases were physicians, and Jessen observes that medical men, on account of their irregular manner of life, are very apt to eat rapidly and chew defectively. He has noticed in himself the syndrome of cardiac and nervous disturbances to which he calls attention, and states that many a so-called neurasthenic, who has been treated for years under this diagnosis, with no symptoms indicating gastric or intestinal disturbances, is yet merely a victim of abnormal processes of putrefaction in the intestines and his troubles vanish with the removal of this cause. In Jessen's experience no therapeutic measure has proved effective except high injections of water flushing the upper part of the bowels. The return of the abnormal fermentations must be prevented with suitable diet, abundance of vegetables and carbohydrates. Most of the subjects are city people, accustomed to eating quantities of meat, and restricting the amount of animal diet will confirm the cure.

Extirpation of Spleen on Account of Subcutaneous Traumatic Rupture. M. MADLENER.—Ten cases of removal of the spleen on this account are on record all but two men, aged from 4 to 45 years. The operation was from soon after injury to 16½ hours after. All recovered but three. Madlener adds another with the peculiar feature that a hernia resulting from the hasty suture required a second laparotomy a few months later, an hour and a half in length, which the patient, a woman of 57, supported without trouble, and convalescence was normal. The retroperitoneal and mesenterial glands were not found hypertrophied, and nothing was found to indicate an accessory spleen. The organ was ruptured by tripping and falling with the side on the edge of a water pail. Symptoms indicating severe injury of a viscus followed, and the ruptured spleen was removed. Convalescence was extremely slow: slight temperature and great weakness during two or three months, no pain. A year later the patient is in perfect health, working hard, hemoglobin 100 per cent., and normal proportions of corpuscles in the blood.

Wiener Klinische Wochenschrift, October 12, 15, 19 and 26.

Infant Nursing and Digestion. M. PFAUNDLER.—An infant nursing at the breast has to make energetic efforts to aspirate the milk, both sucking and squeezing with the jaws. Bottle-fed babies obtain the milk passively without effort, and hence they lack the increased secretion of saliva. The author states that bottle-fed babies can be easily taught to suck properly, and he adds tables which show the benefit derived when this is accomplished. He uses a small nipple on a glass tube extending into the milk, for this purpose. Considerable effort is required to draw the milk up through the tube, and this effort can be measured as a certain level is attained and maintained by means of a valve in the tube. None of the bottles and nipples on the market completely answer the purpose of compelling active sucking, and the matter requires further study.

Acute Lymphemia. F. PINELES.—The sudden prostration in apparent health, the rapid course of the disease, delirium and fever, indicate a still unrecognized infectious influence. In the observation related by Pineles, rabbits injected with 10 c. c. of the patient's blood did not seem to be affected and their health remained normal with no changes in the blood. Cultures were also negative. The question why the usual polynuclear, granulated leucocytes almost completely disappear from the blood, is answered by the supposition that they are derived from the bone marrow, and that when the marrow undergoes lymphoid degeneration the polynuclears disappear. The name "myelogenic leukemia," applied to ordinary cases

of chronic leukemia, is incorrect, as in lymphemia also, the disease is partially of myelogenic origin. It would be better to distinguish them by calling one myelemia and the other lymphemia.

Primary Tuberculosis of Prostate Gland. G. KAPSAMMER.—The tuberculous abscess in the prostate perforated into the rectum and urethra in each of the three observations reported. Hematuria or bloody ejaculations were not noted in any case in the early stages. Infection from coitus seems to be excluded, as it had never been practiced in one case, a male of 17, although frequent onanism was admitted. The urethra would also be first invaded in case of infection from this cause. Kapsammer considers the etiology as the settlement of tubercle bacilli already in the organism, attracted to the prostate as the *locus minoris resistentiae*. The second patient was a young man frequently cohabiting, who noticed, a fortnight after coitus, the passage of "crumbly" pus from the urethra and this for three months, with desire to urinate every half hour, miction becoming more and more difficult. After a year pains were felt in the perineum, ceasing after evacuation of pus and urine per rectum one day. The third patient, a married man of 57, with good antecedents, one day noticed a small tumor in the perineum and subsequent fistula through which urine and pus issued, but never any disturbances in the act of miction, defecation or ejaculation. Both these patients were discharged much improved by instillations of guaiacol. In the first a painless swelling and induration of the right testis were first noticed, frequent desires to urinate, with smarting, miction gradually becoming more and more painful with later perforation of the abscess in the prostate into the rectum, and abscess with continuous discharge of urine, pus and feces, near the anus, requiring the water-bed; death came in thirteen months. At the autopsy the entire urogenital tract was found involved.

Peritonitis from Perforation of Biliary Passages. F. WINIWARTER.—As the three patients were operated on at such different stages—second, eleventh and thirty-second day—the varying conditions could be instructively studied. The symptoms were those of perforation peritonitis, with a history of colics; resistance as of an effusion, but nothing to be learned by percussion or auscultation. The earliest operation disclosed an effusion of a pint of bile-stained fluid in the space between the transverse colon, stomach and liver, extending up to the diaphragm and down to the kidney, walled off from the rest of the peritoneal cavity by slight adhesions between the colon and abdominal wall. The colon thus formed a barrier to prevent the escape of the fluid issuing from the biliary passages, and affords favorable conditions for intervention in these cases. It was impossible to locate the point of the perforation. The gall-bladder was intact in all, and no stone could be palpated. In the operation the eleventh day, solid adhesions were found walling off the effusion, and the fluid was a pus of a peculiar ochre-yellow color, chiefly accumulated in the space between the liver and wall of the thorax, where it had formed a subphrenic abscess. The gall-bladder and biliary passages were almost unrecognizable from pseudomembranes. In the case operated on the thirty-seventh day, the effusion had become encapsulated and transformed into pus, the change manifested by night fever and sweats, diagnosed at first as a pleuritic effusion. The pus had eaten its way through into the colon, producing copious diarrhea with the odor of effusion pus, and the process had entered the natural healing stage, when the aspiration of gases from the intestine into the partially empty abscess cavity, during each expiration suddenly produced the clinical picture of a gaseous subphrenic abscess with sepsis and death in spite of the successful evacuation of the abscess by a laparotomy.

Etiology of Sydenham's Chorea. R. v. KRAFFT-EBING.—A critical study of 200 reliable cases tabulated in this communication demonstrates beyond question that besides infection and intoxication in the etiology of this affection there is also a purely neurotic etiology, in which psychic trauma, on a foundation of a special predisposition, plays a predominant part, while this foundation is not necessary for the development of a toxic case. The infectious genesis must be excluded before assuming a purely neurotic origin for the affection. This is not an easy matter, as experience has shown slight localizations of articular rheumatism in the joints may have passed unperceived and have disappeared at the moment of examination, and endocarditis verrucosa may run its course without fever and without heart sounds. He adds an observation emphasizing the caution required in determining the etiology in certain cases. It suggests the question whether it is possible to distinguish between the purely nervous and the infectious chorea by the clinical picture: a nervous, excitable, young woman—no articular rheumatism, diphtheria five years before—experienced a psychic trauma (severe reprimand for calumny), and chorea developed at once, universal and intense actual anarchy of the muscles, area of heart dulness and sounds normal, no sugar, no albumin in the urine, no delirium, but extremely emotional. Choreic movements ceased only in profound chloral sleep, when the pulse dropped from 160 to 120. In three days fever appeared, the chorea unchanged, but the next day, collapse, no heart sounds, subdelirium and death. The autopsy disclosed *endocarditis verrucosa recens ad valvulum mitralem* with catarrh of the alimentary canal and hyperemia of lungs and leptomeninges. We note in the tables that articular rheumatism with endocarditis preceded the chorea in 30 cases; the same without cardiac affection in 28; other infectious diseases in 17; psychic trauma—sometimes merely a horrible dream—in 13 males and in 53 females, while no cause could be assigned in 21 males and 38 females. Individual predisposing causes were hereditary or family antecedents in 24 men and 49 women; neuropathic, non-hereditary constitution—serious illnesses, etc.—12 men and 23 women; malformation of the skull almost exclusively from rachitis, 26 men and 49 women. The importance of this latter factor in the etiology of chorea and epilepsy has never been duly recognized. Pregnancy may enhance the predisposition, as noted in 4 with hereditary and 2 without—1 articular rheumatism, 1 fall on the ice.

Grece Medicale (Syra), September.

Suture of Radial Nerve with Immediate Restoration of Sensibility. A. P. PETRIDIS.—A soldier, 29 years of age, was wounded by a bullet passing through his forearm, severing the radial nerve and the humerus; "amputation was only omitted because the Greek troops were in retreat." Eighteen months later the forearm, and particularly the hand, were very much ankylosed and atrophied. It was impossible to open the fingers even with force, and there was no sensibility in the hand. After chloroform—no Esmarch—a lengthwise incision along the radial nerve enabled the two stumps of the nerve to be seized. They were much enlarged, and imbedded in cicatricial tissue. As the bullet had carried away a fragment of the nerve, the stumps could not be shortened, and were merely slightly scraped and brought together by flexing the hand, and two catgut stitches taken through the nerve trunk and two other indirect stitches through the neurilemma. Before rising from the table, while just recovering from the effect of the anesthesia, the back of the hand was pricked with a needle, which the patient perceived, the first sensation felt in the hand for eighteen months. Four hours later sensibility seemed to be completely re-established in the region, and twenty-five days after the plaster cast was removed, massage, electricity and passive exercises practiced, and by the end of three months the hand was functioning well from every point of view.

O Brazil Medico (Rio), September 15.

Intradomiciliary Localization of Yellow Fever. J. B. DE LACERDA.—The extensive plans for the sewering of Rio Janeiro are still far from realization, but Lacerda asserts that the eradication of yellow fever does not depend on improved sewerage, but on the radical disinfection of the houses. The methods hitherto in use have been ineffectual on account of the symbiosis of the yellow fever germ with a fungus. He has established that the former is protected by the latter against the action of even 1 per 1000 sublimate (see JOURNAL, July 8, p. 100). The only effectual method now known is to scrape and singe all surfaces inside of infected buildings, and this thoroughly done will eradicate yellow fever without waiting for expensive sanitation. "Burning the houses is the most expeditious measure, but this is barbarous and only applicable in a conquered country."

Tribuna Medica (Rio Janeiro), July 15 and 30.

Study of a New Pathogenic Agent: "Bacillus Testicularis." D. DE MATTOS.—An observation of a case "new to science" is described: a man 29 years of age, married, with two healthy children, no morbid antecedents except a light and thoroughly cured gonorrhea in youth, noticed a year before an inflamed spot in the left groin with pain irradiating to the testis, and in time a small ulcer developed and spread until the scrotum on this side was reduced to a vast solution of continuity covered with abundant vegetations. The sore invaded and progressed in a serpentine course on the penis. The other testis was involved to a lesser extent, and other small ulcers appeared around the genital organs; pus extremely fetid. There was slight lymphangitis, but no ganglion engorgement. The other organs were normal. The epithelioid cells of carcinoma were evident in the structure of the ulcers, isolated and scattered, or in columns or agglomerated in heaps, congregated in the meshes of the network formed by the stroma of a connective tissue character, with divergent fibers. The lesion was a pure culture of a new bacillus, a small, short rod, decolored by Gram, occurring singly or connected end-to-end like an 8 or forming a palisade; very motile; spores in middle or ends, both aerobic and anaerobic; 35 C. most favorable temperature; killed by 60 C.; no peptonizing properties; flourishes on usual media; bouillon cultures at 37 C. become cloudy in a few hours, with a delicate ring around the colony forming a kind of halo which in time forms a veil over the surface but settles in fragments when shaken. By the fifteenth day the bouillon has regained its transparency and becomes alkaline. In gelose there is a specific formation of round isolated colonies which blend into a polycyclic line forming a uniform and continuous ribbon. There is no indol at first, but traces by the thirtieth week. The bacillus testicularis, as Mattos calls it, possibly resembles Loeffler's bacillus more than others, but is an entirely distinct micro-organism. As the cultures grow older the shape alters, the bacillus becomes segmentated until it resembles a chain of cocci or stretches out into a filament 5 or 6 mm. long. The patient was dismissed entirely cured in six weeks, by merely local antiseptic treatment, hot compresses and cauterization later, with mercurial pills and potassium iodid internally.

Societies.

COMING MEETINGS.

Southern Surgical and Gynecological Association, New Orleans, La., December 5-7.

Western Surgical and Gynecological Association, Des Moines, Iowa, December 27-28.

Indian Territory Medical Association, Wagoner, December.

Peoria Medical Society.—This Society held its annual meeting in Peoria, Ill., recently, and the following officers were elected: president, O. J. Roskoten; vice-president, E. M. Sutton; secretary, H. M. Sedgwick; treasurer, Emma Lucas; censor, J. C. Roberts.

Keokuk County Medical Society.—The first annual meeting of this Society was held October 31, at Sigourney, Iowa. The newly-elected officers are: president, C. L. Heald, South English; vice-president, C. M. Hamilton, Thornburg; secretary, A. P. Johnson, Sigourney; treasurer, L. B. Oliver, Sigourney.

Central Missouri District Medical Society.—At the annual session of this Society, held in Sedalia, Mo., November 2, the following officers were elected for the ensuing year: president, E. H. Culp, Otterville; first vice-president, J. B. Norman; second vice-president, J. W. Marsh, Tipton; third-vice-president, W. H. Evans, Sedalia; secretary, H. B. Cole, Sedalia; treasurer, W. O. Dunlop, Sedalia.

Salt Lake County Medical Society.—The subject of discussion at the recent meeting of this Society, held in Salt Lake City, Utah, was the use of formaldehyde in the preservation of milk. The unanimous opinion was that formaldehyde was injurious and that the practice, if it existed, of using preservatives in either milk or food should not be permitted. There was, however, a difference of opinion as to the wisdom of the Society, with the limited knowledge it possessed regarding the subject, taking any action at this time, especially as the courts are about to be asked to pass on a test case.

American Public Health Association.

Twenty-seventh Annual Meeting, Held in Minneapolis, Minn., Oct. 31,-Nov. 3, 1899.

(Concluded from p. 1224.)

SECOND DAY—MORNING SESSION.

CAUSE AND PREVENTION OF INFECTIOUS DISEASES.

DR. P. H. BRYCE, Toronto, Can., secretary of the Provincial Board of Health of Ontario, presented the report of the committee on the above subject. Smallpox was first considered, as thousands of cases have occurred in the United States with the mortality not exceeding 40 per cent.

Insects as disseminators of disease play an important part, this subject having received much attention during the past five years, plague, anthrax and other infectious diseases being carried by flies, and the plague bacilli having been found in the intestines of flies. He also referred to the mosquito as a carrier of malaria parasites, and the part played by birds in disseminating disease. As to propagation of the plague, the report states that infection from a rat to a rat has not been known to occur when they were placed in a cage where fleas are.

PREVENTION OF CONTAGIOUS DISEASES.

DR. F. W. WRIGHT, New Haven, Conn., presented a paper on this subject, pointing out that as early as 1500 B.C. formulated rules for preventing disease existed among the Egyptians, while the ancient Hebrews also had their regulations. He referred to the spread of infectious disease through commercial transactions. Medical men should inspect the schools daily and the board of health should be sustained by the public.

TRANSMITTABLE DISEASE IN SAN LUIS POTOSI.

DR. J. E. MONJARAS, San Luis Potosi, Mex., discussed this subject with general remarks on the etiology and prophylaxis. He emphasized the fact that after pathogenic microbes have been introduced, the morbid elements must always exist in the neighborhood to result in infection. He also spoke of the part played by soil, dwelt at length on the microbic origin of influenza pulmonalis in his city, and the management of smallpox and vaccination.

CAUSE AND PREVENTION OF INFANT MORTALITY.

DR. ERNEST WENDE, Buffalo, N. Y., presented this subject. A group of scarlet fever cases occurred on a milk dealer's route. This is carefully watched. He instanced the occurrence of fifty-six cases in children of twenty-seven families, on one route, the investigation showing that two cases of the disease existed in the milk dealer's family. In the Health Department is kept a "milk register" showing the source from which the milk is obtained by dealers. This system has not only been successful in this disease but also in lessening cholera infantum and typhoid fever.

FORMALDEHYDE AS A MILK PRESERVATIVE.

DR. A. G. YOUNG, Augusta, Me., submitted a paper on this subject, concluding that formaldehyde used as a preservative impairs the nutritive value of milk and interferes with the digestive processes. In either case it is only a question of dosage.

DAIRIES IN MEXICO.

DR. JOS. L. DE LAGOMEZ, Mexico City, Mex., presented a paper on this subject He dwelt especially on the condition of dairies in the past, contrasting this with the present condition.

SECOND DAY—AFTERNOON SESSION.

TYPHOID FEVER FROM PUBLIC WATER-SUPPLY.

DR. JOHN J. LEAL, Paterson, N. J., presented a paper on this subject. He referred to an epidemic of typhoid which occurred in his city from Oct. 1, 1898, to April 30, 1899. Of those taken sick, 98 per cent. had been using the infected water, and the sickness originated from one case, although the drainage from this single instance was not directly into the river, but through a succession of streams, tributaries, puddles, etc.

TYPHOID IN NEWARK, N. J.

DR. H. C. H. HEROLD, Newark, N. J., in his paper on this

subject, said that water containing from 3 to 10 grains of sewage to each gallon of water is dangerous to use and liable to bring on intestinal disease. He referred to the cases mentioned in Dr. Leal's paper and the loss from a monetary point of view.

BACTERIAL PURIFICATION OF SEWAGE.

MR. H. W. CLARK, chemist of the Massachusetts State Board of Health, Boston, presented a paper on this subject. He dwelt on the methods employed in the experimental stations at Lowell and Worcester, Mass., and detailed the micro-organisms, etc., of domestic sewage. He predicted that in time chemical methods for its purification will be relegated to the past and only natural methods be in vogue, e.g.: the land method, the sand and soil replacing the chemical.

SANITARY MUNICIPAL ORGANIZATION.

DR. C. S. CHAPIN, Providence, R. I., presented a paper intended to examine into the existing sanitary organization of the countries belonging to the Association. Regarding Mexico, he said that there were eleven boards of health in that republic. The members are appointed by the governors of the states and their term of office is indefinite. They are appointed on merit alone and do not hold the appointment by political intrigue. He finds vaccination very much neglected in that country. As to the United States, he entered into the duties that should be performed by the health official, and what should be expected from the public, and said that in large cities the control of the milk, food, ice, hospitals, bacteriologic laboratories, the removal of refuse, etc., should be in charge of the municipal boards of health.

RURAL SANITATION IN ENGLAND.

MR. W. H. ALLEN of the University of Pennsylvania, Philadelphia, presented a paper on this subject, and said that the county medical officials in England give advice which is cheerfully complied with by the people of the rural districts. Even the pig-sties, cow-sheds, barns, etc., are built according to regulations.

THIRD DAY—MORNING SESSION.

HISTORY OF VACCINATION.

DR. WILLIAM BAILEY, Louisville, Ky., presented a paper on this subject. He referred to the first indorsement of this procedure in England in 1717, and its later approval by physicians in that country in 1721, and also spoke of the later work of Jenner.

ACCIDENTS OF VACCINATION.

DR. W. C. WOODWARD, Washington, D.C., in his paper on this subject said that mechanical and biologic processes in vaccination are of equal importance. He described auto-vaccination and the serious results that might ensue therefrom.

RESOLUTIONS ON THE LATE DR. ROHE.

The following resolutions were offered and adopted:

Resolved, That the announcement by the President of the Association of the sudden removal by death of Dr. George H. Rohé, while president of this Association, has been received by its members with profound regret.

Resolved, That we recognize in Dr. Rohé, not only the accomplished scholar, the versatile author, the sagacious administrator, and the well-trained sanitarian, but as well the courteous, the gentleman, the genial companion and faithful friend.

Resolved, That in his departure from the sphere of his earthly activities, when his life and his fame were scarcely at their zenith, this Association, in common with the medical profession, with sanitary science and benevolent enterprise, has sustained a great and lasting loss.

Resolved, That these resolutions be prominently placed in our Transactions, and that a copy of the same be transmitted to his family.

(Signed) DR. BENJAMIN LEE,
DR. C. A. LINDSLEY,
DR. F. MONTIZAMBERT,
DR. C. HAMPSON JONES.
Committee.

WHAT CONSTITUTES AN EPIDEMIC.

DR. U. O. B. WINGATE, Milwaukee, Wis., presented the report of the committee appointed to define an epidemic, with the following definition: "An epidemic is an outbreak of a communicable or infective disease affecting a dozen or more individuals in quick succession before the recovery of the first case, whether arising from a single focus or from several foci in a neighborhood."

DEFINITION OF DIPHTHERIA.

DR. HERBERT HILL, Boston, presented a paper on this subject. His conclusions are that the disease is present only when the active diphtheria bacillus producing recognizable lesions is present. In many cases the clinical evidence is so complete that the presence of the bacillus can be inferred, but it is advisable to demonstrate it microscopically in all cases. "The presence of diphtheria bacilli without the production by them of recognizable lesions does not constitute the disease of diphtheria; such patients nevertheless constitute to others possible sources of infection and of development of the disease In order to place the matter on a definite basis, he suggests that this distinction be recognized by so wording all regulatic relating to the supervision of diphtheria that, in so far as mi be advisable for the protection of the public health, the demo stration of the presence of the diphtheria bacillus should b sufficient to empower health authorities to proceed with measures directed to prevent its dissemination.

THIRD DAY—AFTERNOON SESSION.

NATURAL TREATMENT FOR TUBERCULOSIS.

DR. R. O. BEARD, Minneapolis, Minn., in his paper on this subject, favored quarantining tuberculosis as effectively as we do yellow fever. Regarding forests, he pointed out that New York has her Adirondacks; Ontario her Algonquin Park; Colorado, her high altitudes; Arizona, her dry plains; California, her warm equitable climate; Texas, her plains; Minnesota, her cool, dry, pure air. This led up to consideration of the proposed National Park and the preservation of the Minnesota forests as health resorts for tubercular patients.

ETIOLOGY OF CANCER.

DR. A. WALTER SUITER, Herkimer, N. Y., offered the following resolutions:

WHEREAS, The encouragement of the endowment of research in the science of etiology and prevention of diseases is entirely within the province and mission of the American Public Health Association, and,

WHEREAS, By recent legislative action the State of New York has taken a decisive step in the advance by the grant of an annual appropriation for the establishment and maintenance of a laboratory with all modern appliances for the persistent prosecution of studies in the etiology of cancer, and

WHEREAS, Results have already been obtained which lead to the hope that the discovery of the etiology factor in the production of this much dreaded disease may be at hand; therefore,

Resolved, That the American Public Health Association take this occasion to place on record its approval of all similar efforts to the end that state and national patronage in special and general scientific research may be universally established.

REPORT OF TUBERCULOSIS CONGRESS.

DR. E. A. DE SCHWEINITZ, Washington, D.C., presented a report of the proceedings of the international congress, regarding the past methods of checking and curing of tuberculosis, held at Berlin, May 24 to 27, 1899. The report was of such length that it was not read, but simply referred for publication.

LEPER HOME OF LOUISIANA.

DR. C. P. WILKINSON, New Orleans, La., in his paper on this subject, described this home, situated on the Mississippi not less than one-half mile from any other habitation. The home proper has extensive grounds, with large orchards and gardens, and is surrounded by a high fence for seclusion of the inmates, with an elevated platform for the use of the patients who wish to look beyond the enclosure.

FOURTH DAY—MORNING SESSION.

TREATMENT OF GARBAGE AND EXCRETA IN MILITARY CAMPS.

DR. BENJAMIN LEE, Philadelphia, in his paper on this subject spoke of flies as disseminators of disease, and said that of the 5731 American men who died in our late war with Spain, only 450 died as results of wounds received in battle, but more than nine-tenths of disease largely preventable, and the majority of these without ever having left our own soil. Not only typhoid, but also epidemic dysentery and camp diarrhea may be attributed to this cause. Not only house flies, but bed-bugs, fleas, mosquitoes, roaches, and gnats disseminate disease. We should meet the occasion: 1. By destroying them when abolishing them proves impossible. 2. By pre-

venting them from having access to garbage piles. 3. By protecting cooked food, milk, and sugar from them. He went at length into the methods for carrying these out.

WASTE DISPOSITION AND ITS ADVANTAGES?

MR. MACDONOUGH, C.E., New York City, presented a paper on this subject, much of which was devoted to figures on the results and analyses of refuse in New York City, including not only the disposal of garbage, but street sweepings in general. He said that in a general way, utilization plants can not be economically introduced in cities of less than 100,000 inhabitants, as the long haul necessary in thinly populated cities makes reduction out of the question if economy is considered. Crematories can be erected in larger cities and the reduction system by this method is most desirable and economical in waste disposal work.

NEXT STEP IN WASTE DISPOSAL WORK.

COL. W. F. MORSE, New York City, in his paper, agreed with the above speaker regarding crematories, etc. He gave a short description of disposing of garbage by reduction, as carried on in Boston, Philadelphia, and New York City, and discussed the following points: 1. The disposal of waste of the city without creating nuisance. 2. Reduction of cost of cremation by employing the waste as fuel. 3. Separation and sale of articles that have a value. 4. Utilization of the surplus heat from burning waste.

The Executive Committee submitted various resolutions, some of which were adopted, among which was one relative to securing advance sanitary teaching in our universities and medical schools. The definition of the term epidemic, as given above, was not approved of and was re-referred to the committee for the ensuing year.

OFFICERS, ETC.

Indianapolis was chosen as the next place of meeting, and officers were elected as follows: president, P. H. Bryce, Toronto; first vice-president, H. M. Bracken, Minneapolis; second vice-president, Juan Brena, Zacatecas, Mexico; secretary Charles O. Probst, Columbus, Ohio; treasurer, Henry D. Holton, Brattleboro, Vt.; executive committee, J. L. Leal, Paterson, N. J.; C. P. Wilkinson, New Orleans, La.; J. F. Kennedy, Des Moines, Iowa; A. W. Suiter, Herkimer, N. Y.

The Council also recommended for the officers of the new section of chemistry and bacteriology, the following: chairman, Theobald Smith, Boston; vice-chairman, F. F. Westbrook, Minneapolis; secretaries, Wyatt Johnson, Montreal, and Adolph Gehrmann, Chicago.

N. Y. Academy of Medicine.

Section on Pediatrics, Oct. 12, 1899.

CASE OF SCURVY IN AN INFANT.

DR. W. L. CARR presented a paper on this subject. The patient was an emaciated child of 12 months. The lower extremities were painful on motion and kept semi-reflexed, and on the left thigh there was a swelling of considerable size. The mouth was reddened and the gums dark blue and swollen. There were no hemorrhages and no petechial spots on the skin. There was some beading of the ribs, but the signs of rachitis were not marked. The mother stated that she had been able to nurse the child for only two weeks. A milk diet did not appear to agree with it, and she resorted to various proprietary foods, one after another. Of late these foods had been used without the addition of any fresh milk. The child was placed on beef juice, orange juice, and a small amount of milk, and within a few days it was able to take an adequate quantity of milk and all the scorbutic symptoms had entirely disappeared.

DR. HENRY KOPLIK said that the apparent paresis of the upper or lower extremities was one of the first things noted in scurvy.

DR. S. SEABURY JONES had recently met with two cases of scurvy in infants. At first he simply gave the children beef juice and milk, without any fruit, and there was comparatively little improvement. He then added orange juice to the diet, and there was immediate recovery. This seemed to show that fruit was essential in the treatment of the condition.

DR. A. JACOBI said that there are certain cases of scorbutus where the unusual symptoms occur first. He had seen two cases in which hematuria was the only symptom, with the exception of very slight lividity of the gums in one instance and a few petechiæ in the other. The immobility of the limbs so commonly noted was simply the result of pain. The diagnosis between scurvy and rheumatism was very easy, as, except in extremely rare instances, the joints were not at all affected in the former.

ANTIPYRETIC DRUGS: THEIR USE AND ABUSE IN TREATMENT OF FEVER.

DR. A. JACOBI read a paper on this topic. He spoke of those who object to the use of antipyretics, on the ground that a high temperature is required to kill bacilli and produce antitoxins. But if the high temperature is left to kill the microbes, it will be likely to also destroy cells, and the patient too. In such diseases as typhoid fever, pernicious fever, and the plague, the mortality has been shown to correspond, as a rule, to the continued high temperature. It is the remissions which avert danger. In some cases the causes of the febrile action require attention. In others it is necessary to treat the symptoms as they arise, and it is here that the so-called expectant treatment has its justification. To be satisfied with merely depressing temperature is a mistake, but to allow a pernicious fever to run its course with high temperature is equally injudicious. In the case of infants and young children, their comparatively feeble powers of resistance and the facility with which hydremia is caused are always to be borne in mind. More perish by high temperature in the decline of febrile diseases than in their onset.

Dr. Jacobi considers quinin in fair doses distinctly antipyretic. He spoke favorably of its use in pneumonia, and advised that here, as in all febrile diseases where it is employed it be given during the remissions. In the case of children, he recommended the fresh powder given in syrup of coffee, or in chocolate.

For forty years he had employed ergot with great success in certain cases of chronic intermittent fever, with tumefaction of the spleen, which had resisted quinin and arsenic, Sometimes quinin or arsenic is efficacious after the use of ergot, in cases which had before resisted these.

When the remissions are very short, it is a good plan to reduce high temperature by an occasional dose of antipyrin in connection with quinin. The salicylate of sodium can often be combined with quinin with good results.

He seemed to consider antipyrin the most satisfactory drug of its class. It increases the tension of the pulse and blood-pressure, and the peculiar exanthemata resembling measles, which it sometimes produces—seldom, except after a first dose—appears to be the result of its action on the blood-vessels.

Acetanilid, while it does not disturb the skin nor the stomach, should never be employed, as it is an aniline derivative and positively poisonous.

Phenacetin resembles it, but is much milder and often serves a good purpose. It is commonly given in much too large doses, and he has found that, as a rule, 3 gr. is quite enough for an initial dose in adults. A correspondingly small dose should be used in the case of children.

Alcohol has a great advantage over other agents by reason of its rapid absorption from the stomach. It should always be given properly diluted, and in large enough doses it is a decided antipyretic. In the ordinary aseptic fevers it is seldom called for. In the septic fevers, however, there is no better antiseptic agent than alcohol in full doses, and here there is almost no dose of it that will not be well borne. He has not infrequently given as much as a pint of whisky in twenty-four hours, to a growing subject. It will cease to be tolerated just as soon as the sepsis ceases to exist. It is inadvisable to give alcohol in the first stage of pneumonia, because 4 per cent. of it is eliminated by the lungs, and this extra burden should not be thrown on these organs in their already embarrassed condition. It is also contraindicated where there is nephritis.

HYDRIATIC MEASURES IN MANAGEMENT OF FEBRILE DISORDERS OF INFANCY AND CHILDHOOD, WITH A PRACTICAL DEMONSTRATION OF VARIOUS HYDRIATIC PROCEDURES.

DR. SIMON BARUCH, in a paper on this subject, after some general remarks on the value of the external application of waters in fevers, said that in children the temperature of the

water should be considerably higher than in the case of adults. In typhoid fever the first bath should be at a temperature not lower than 90 degrees. Frictions, while the patient is in the bath, are also a matter of the greatest importance. Hydrotherapy is the most efficient agency at our disposal for combating cardiac exhaustion, as this method of treatment has the effect of stimulating both the vascular and the nervous system. He does not know of any other one agent that will accomplish both of these things.

The common practice of passing a cold sponge over the body of a fever patient is of doubtful value. In making use of ablutions, gentle mechanical irritation should always be employed, and this is best accomplished by means of gauze held in the hand. The temperature of the water used should be at first about 90 degrees, and reduced 1 degree at a time to 60 degrees. In pneumonia, the full bath should begin at 95 degrees, last five to eight minutes, the temperature in the meantime being reduced to 80 degrees. It should also be followed by friction. In typhoid fever, on the other hand, the water is to be cooled before placing the patient in it, and the bath should last ten to fifteen minutes and not be followed by drying. In pneumonia, a chest compress is also of service, the temperature at first being 100 degrees, and afterward gradually reduced. In desperate cases of bronchopneumonia he is in the habit of ordering a stimulant affusion of about 60 degrees, while the patient is in a bath of 100 degrees, and this is generally followed by a prompt amelioration of all the most distressing symptoms. Cold affusions are also indicated in scarlatina, a disease in which full baths, as a rule, are not well borne.

New York County Medical Association.

Oct. 16, 1899.

CHOLELITHIASIS AFFLICTING A WHOLE FAMILY.

DR. CARL BECK presented four out of a family of ten, all of whom had suffered from cholelithiasis. The first patient was a woman, and especially interesting because of the fact that, in addition to a successful operation for the removal of gall-stones, she also had a transposition of the viscera. Dr. Beck said that he believed this the first instance where gall-stones had been removed from the left side of the body. Skiagraphs were offered as proof of the existence of this transposition. Additional interest was lent to the case of the mother, 72 years old, in that it was the first of a long series in which Dr. Beck had succeeded in securing photographic proof of the existence of gall-stones, by the aid of the Roentgen rays.

SPASTIC SPINAL PARALYSIS.

DR. EDWIN GAILLARD MASON presented a child suffering from spastic spinal paralysis, the points of interest being the early development and the decided improvement that had taken place independently of treatment.

DR. W. M. LESZYNSKY alluded to the rarity of such cases, except when secondary to a brain lesion.

DR. M. C. O'BRIEN called attention to the fact that the unfavorable prognosis often made when these cases were seen early in life was not always borne out by their subsequent course.

NEW GALVANOCAUSTIC INSTRUMENT FOR BOTTINI TREATMENT OF HYPERTROPHY OF PROSTATE.

DR. ROBERT NEWMAN exhibited this instrument, which he had devised. The chief features were the absence of the usual water-cooling device and the use of a platinum "burner" which could be made to project to a greater or less extent from the catheter-shaped body of the instrument.

VACCINATION.

DR. DAVID P. AUSTIN read a paper on this subject. His large experience as a vaccinator for the health department gave additional weight to his statements. He said that there had been scarcely any failures in the primary vaccinations, while about 60 per cent. of the second, and 30 per cent. of the third vaccinations had "taken." He took strong ground on the subject of revaccination, believing that in private practice children should be vaccinated once a year until immunity had been established, and that this immunity would continue for the remainder of the person's life. He had himself been vaccinated upward of fifty times, but none had proved successful after the fourth one. He said that if our troops had been vaccinated several times, at intervals of about one month, instead of only once, they would have escaped smallpox when exposed at Manila.

DR. J. H. HUDDLESTON, while thoroughly in favor of revaccination, could not accept the theory that a life immunity could be conferred. When in a given case, vaccination with good virus proves unsuccessful, it merely signifies that the person is immune for the time being, but how long it would last can not be definitely predicated. As proof of the correctness of this view, cases were cited from the records of North Brother Island showing that successful revaccinations had been done within six months after a successful vaccination.

DR. FRANK S. FIELDER quoted statistics to show that the mortality from smallpox steadily diminishes with the number of successful revaccinations, and that it is comparatively trifling in persons presenting evidence of having been successfully vaccinated several times.

DR. HENRY ILLOWAY referred to the case of a boy who had been repeatedly vaccinated without success, and who had, in his own hands, yielded the same result, although the brother and sister, vaccinated at the same time with the same virus as a control, had given good results. The fact that he had been able six months later, to vaccinate the first boy sucessfully on the leg had suggested the possibility of varying susceptibility to vaccination in different regions of the body, owing to local differences of circulation.

URETHRAL CATHETERISM, CATHETERS AND BOUGIES.

DR. JOHN W. S. GOULEY presented an exhaustive communication bearing this title. As to the selection of catheters, his advice is to eschew the cheap linen instruments in favor of the silk catheters, which are cheaper in the end, although the first cost is nearly double. He said that after using one of the American-made silk catheters 300 times its surface is still as smooth and perfect as at first. The cheap commercial catheters, popularly called "ten-cent catheters," are, however, useful in many cases, and can be boiled a number of times without injury. Web catheters and rubber catheters are alike injured by the ordinary fatty lubricants, as well as by glycerin; hence, a soap lubricant was advised. Both varieties of catheters will deteriorate after a time, but this tendency to harden and become brittle can be greatly retarded, particularly in the case of the rubber instruments, by keeping them in tightly-closed glass tubes so as to diminish oxidation as much as possible. When it is necessary to enter the bladder in a person having a number of false routes, either of two methods was advised. The first is that known as Hey's, and consists in passing a silk catheter, No. 9 or 10 English, armed with a curved stilette, down to, but not into, the mouth of the false passage, when, by withdrawing the stilette at the same moment that the catheter is pushed forward toward the bladder with the other hand, the instrument will be made to override the false passage. The other is by the use of that most precious, but little appreciated instrument of Mercier—the invaginated catheter. This instrument can be successfully used in 95 per cent. of cases of false routes. (See No. 114, p. 1282.)

DR. L. BOLTON BANGS said that if there were any one thing which his long experience would lead him to emphasize it was gentleness and delicacy of manipulation as the keynote to success in this field.

DR. JOSEPH D. BRYANT emphasized the need for the utmost cleanliness as well as gentleness. It is very seldom indeed that the use of a rigid catheter is indicated.

DR. S. ALEXANDER said that the paper just presented would have been complete but for an omission, due to the innate modesty of the author, viz.: the neglect to mention the good that could be accomplished by the use of the Gouley catheter in connection with a filiform bougie. Personally he had not been able to succeed very well with the invaginated catheter, but had done much better with the Gouley instrument.

DR. CARL BECK recommended that for emergency cases the practitioner should carry with him a metallic catheter, which could then be easily sterilized by boiling. Although it is practically impossible to sterilize the urethra, it is advisable, before exploration of this canal, to inject a 5 per cent. solution of iodoform in glycerin.

Cincinnati Academy of Medicine.

Oct 23, 1899.

PURPURA HEMORRHAGICA.

DR. CHARLES BELT read a paper with this heading. In an experience of twenty years in general practice, he has seen but this one instance of this disease. He, however, not infrequently saw a purpuric eruption as a complication to other distinct affections. He divided purpura into three varieties: purpura simplex, in which the spots appear on the legs in crops, with or without articular pains; purpura—peliosis—rheumatica, characterized by fever, multiple arthritis and an eruption usually purpuric in character but occasionally urticarial or erythematous; purpura hemorrhagica, with, in addition to the eruption, severe hemorrhages from the various mucous membranes or into the brain. This latter condition usually attacks delicate and feebly nourished children, particularly girls, but may come on in individuals in robust health. Some cases are exceedingly malignant, and death ensues within twenty-four hours, the so-called purpura fulminans. The blood is as a rule but little changed, there being a diminished number of red corpuscles with a relative increase in the number of whites, as would naturally be expected after a severe hemorrhage. His patient was a girl of 14 years, well developed and nourished, of good family and personal history. The onset of the attack was sudden, with a chill followed by fever with its usual accompanying symptoms. A second chill followed within twenty-four hours; this in turn was followed by an eruption of from thirty to forty purpuric spots, by vomiting of coffee-ground vomit and by the sudden onset of severe cerebral pressure symptoms that rapidly ended the scene. He is reasonably certain that the brain symptoms were due to hemorrhage, on account of their sudden onset. At the time of the first chill he had given quinin in divided doses, the child receiving about 15 gr. After the onset of the rash he gave her several grains of an antipyretic. He does not think that either of these drugs had anything to do with the eruption. She had taken quinin before, on his own prescription, in larger doses without any bad effects. A remarkable feature was the stopping of respiration fully two minutes before the cessation of cardiac action. The child had been successfully vaccinated about six months previous to this last sickness; there had been no cases of smallpox in that region. She had met with no trauma though a most persistent bicycle rider. She was not hemophilic. He does not regard the case as one of cerebrospinal meningitis. An important feature in the case was that the girl was beginning to show signs of entering menstrual life.

The discussion took up purpura in general. Some thought that the case was one of cerebrospinal meningitis, as many instances of this disease had been reported throughout the state during the time of this patient's illness.

DR. CHARLES CALDWELL reported several instances of purpura, notably one occurring in the eruption of secondary syphilis.

DR. J. L. CLEVELAND regarded purpura not as a disease but as a symptom, and a symptom common to many infectious, toxic, and cachectic causes. He is inclined to the belief that the case was cerebrospinal meningitis.

Oct. 30, 1899.

INDUCTION OF LABOR ON ACCOUNT OF CONTRACTED PELVIS.

DR. W. D. PORTER, in the summer of 1896, was called to see a primipara who had been in labor about twenty-four hours, hence this paper. The pains had been strong and regular, but the head had remained above the brim. Efforts to deliver with forceps had caused the head to engage, but beyond this had accomplished nothing. The child was dead, so the head was perforated and delivery effected without much difficulty. The woman made an interrupted recovery.

About fourteen months later, then in the third month of pregnancy, she came to his office for advice. The diameters of the pelvis were such that he advised the induction of labor one month before term. He learned later that she had had an abortion produced at about the end of the third month. In October, 1898, she again called, again pregnant, and as she had moved to the city, placed herself entirely in his care, and agreed to induction of labor when he should deem it best. He consented to her demand that she was to be exempt from any surgical operation, believing that if he had not, she would have again resorted to an abortion.

At the end of the seventh calendar month, he noted that the head could be forced into the pelvic brim, but not easily. With the passage of each week this procedure became more difficult. He thereupon decided to terminate the pregnancy in the latter part of the thirty-fifth week, counting from the first day of the last menstrual period. She was accordingly sent to Christ's Hospital in April. After thorough preparation, the cervix was dilated, first with the fingers and then with Barnes' bags. Within two hours, uterine contractions began. These contractions continued rather irregularly for from six to eight hours. During the most of this time the Barnes' bags were in position. The cervix was by that time well dilated, but the head had not descended. Chloroform was then administered, the head crowded down from above as much as possible, forceps were applied with reference to the pelvis, and the head was dragged into the pelvis as far as could be done with moderate force. The forceps were then accurately reapplied to the sides of the head. From this point progress was slow and considerable force was necessary.

In about an hour the child was delivered in good condition. The mother's condition, however, was such as to cause anxiety. Her pulse was weak and rapid and her respirations shallow. She presented all the features of shock, though there was no undue hemorrhage, nor was there any discoverable lesion of the soft parts. Strychnia was used hypodermically, and heat applied externally. It was two hours before her condition became reassuring, but she made a good recovery, her highest temperature being 100.5.

The child was delivered on the 242d day from the last menstrual period, or thirty-eight days before the computed date of full term.

OVARIAN PREGNANCY.

DR. J. M. WITHROW gave the following history of a case: Mrs. J. H., aged 33, the mother of two children, 12 and 14 years old, was the subject of an obstinate retroflexed and prolapsed left ovary. She had also suffered from an almost intolerable dysmenorrhea for several years. She had been referred to him by Dr. W. E. Shaw, and he had performed ventrofixation three years ago. For some months after the operation she had done fairly well, but her dysmenorrhea had gradually returned until she was no better than before the operation. The uterus, however, remained in anteversion, but the ovary was prolapsed, tender, and enlarged. About the first of October, while preparing dinner, she had been seized with a sudden attack of sharp pain in her left side, so severe as to completely prostrate her. Dr. Shaw was called and found her almost in collapse, but with the abdomen so tender that a satisfactory bimanual examination could not be made. She kept her bed for several days and was then sent to the essayist. She had menstruated in the latter part of August, but had missed her period in September and was three weeks overdue when the above-mentioned attack of pain occurred. On examination he found the uterus enlarged and a tender mass the size of an orange behind the left broad ligament. A diagnosis of ectopic pregnancy was made and she was sent to the Presbyterian Hospital for operation. Her pulse was uniformly above 100, and her temperature from 1 to 2 degrees above normal; her general condition bad. After a week's rest, a laparotomy was performed. Before making abdominal section, the uterus was curetted, and a decidual membrane—also shown—was raked out of the cavity of the uterus.

The specimen presented showed the tube intact without a break and its fimbriated extremity free from the ovary. The ovary, continuous with the gestation sac, was found deep behind the left broad ligament. It was attached to the anterior wall of the rectum by the sac and a mass of old blood clots. There was no corpus luteum on the other ovary, and none elsewhere on the ovary presented, so that all the indications of an ovarian pregnancy were present. The patient made an interrupted recovery. He presented the specimen on account of the extreme rarity of the condition. Kelly, in 1000 sec-

tions, with 23 ectopic gestations, never saw an ovarian pregnancy, and Martin, in 77 saw but one. Thomas had 33 cases, none of which were ovarian, and Lawson Tait said it is highly probable that every extrauterine pregnancy takes its origin in the Fallopian tube.

He was very much interested to note that the fundus of the uterus was attached to the anterior abdominal wall by a ligament only half the thickness of a lead pencil and about 2½ inches long. It was enough to hold the uterus erect and prevent much retroflexion, but as it was only three years since it had been broadly attached to the abdominal wall, he thought that it was quite an argument against the utility of ventrofixation as a permanent cure of retrodisplacements of the uterus..

FIFTY-NINE ABDOMINAL SECTIONS.

DR. CHARLES L. BONIFIELD, at the May meeting of the Cincinnati Obstetrical Society, had reported twenty-four cases operated on during the earlier months of the year. Of fifty-nine cases there had been four deaths as follows:

CASE 1.—A boy, 12 years of age, was sick for four days, with appendicitis. In the beginning the symptoms had neither been severe nor characteristic, but when he saw the patient there was general distension of the abdomen, diffuse tenderness, rapid pulse and profuse perspiration. An incision was made over the appendix, without difficulty striking an abscess containing about two ounces of pus. The appendix was not in evidence and but little search was made for it. The cavity was washed out with normal salt solution, an iodoform gauze drain inserted, and the external incision partially closed. Twelve hours later the intestine ruptured and the boy died from the shock.

CASE 2.—Menstruation began at 14 and was regular until about six months before this patient was first seen by the writer. For three months there was amenorrhea. Her health had been good until shortly before menstruation ceased, when she began to complain of severe pain in the lower part of the abdomen and in the right hip. She had lost flesh very rapidly and was now unable to leave her bed. Physical examination showed a tumor extending almost to the umbilicus and developed most on the right side. It was apparently semisolid. There was no ascites. A diagnosis of ovarian tumor, probably malignant, was made. She entered the Good Samaratin Hospital, and on February 4 a large sarcoma of the ovary was removed. There was a little free fluid in the peritoneal cavity and this had permitted numerous and extensive adhesions to the omentum and intestines. The hemorrhage that followed the breaking up of these adhesions was something frightful, but was controlled by packing with hot sponges. The patient rallied slowly from the operative shock, and died four days later from exhaustion.

CASE 3.—A woman, aged 60, complained of a very slight irregular discharge from the vagina for a few months. Digital examination revealed the uterus slightly larger than it should be in a woman ten or fifteen years past the menopause. It was freely movable. Inspection showed a healthy cervix from which issued a slight discharge. Malignant disease of the body of the uterus was suspected on account of the patient's age and the size of the uterus. On March 25, at Christ's Hospital, she was curetted and the scrapings, immediately examined by the aid of a freezing microtome, proved to be malignant. The abdomen was opened and the uterus removed. She rallied somewhat slowly but completely from the shock and did admirably well for forty-eight hours; at that time an enema was given to assist some purgative she had taken to move the bowels. This was followed by collapse. The next morning she had improved considerably but, the abdomen being somewhat distended, another enema was ordered. She began to fail rapidly and died the same night.

No post-mortem could be obtained, but the essayist thought that she had succumbed from heart failure dependent on fatty degeneration of that organ. He did not think that the slight force of the enema could have ruptured a healthy uninjured gut, and he was confident that the intestines had not been injured during the section.

CASE 4.—Mrs. R., aged 65, was operated on at the Good Samaritan Hospital, May 21, for a cystic tumor of the ovary, weighing 65 pounds. She died three days later of pneumonia.

Summary of the fifty-nine cases: exploration, 4; appendicitis, 4; hysterectomy for cancer, 1; hysterectomy for fibroid, 3; ovariotomy, cystic tumor, 1; ovariotomy, solid tumor, 1; cyst of broad ligament, 1; oöphorectomy, 26; dermoid tumor of the ovary, 1; ventrofixation, 2; hernia, 2; fixation of a floating kidney, 1; gall-stones, 3; evacuation of small cysts of ovary, 1; inguinal colotomy, 1.

Washington (D. C.) Medical Society.

At the recent meeting of the Medical Society, the following papers were read: Dr. Elliott, "Gunshot Wound of the Knee-Joint;" Dr. Vale, "X-Ray Diagnosis of Thoracic Aneurysm;" Dr. Boarden, "Four Cases of Appendicitis, with Specimens;" Dr. La Garde, "Remote Effects of Gunshot Wounds, by the Mauser Bullet—with Exhibition of Ten Cases;" Dr. Morgan, "Glosso Labio Laryngeal Paralysis, with Report of Case."

MALPRACTICE.

DR. W. C. WOODWARD, among things in a paper on this subject, said that from a medical standpoint it may be divided into civil malpractice and criminal malpractice. Civil is the result of ordinary ignorance or neglect; criminal, the result of intent, or of gross ignorance or neglect. The maximum of knowledge, skill, and care allowed by the law is the average knowledge, skill and care employed by physicians generally, in like cases, at the same period of time, and in the same and similar localities. Whether the facts in any given case constitute malpractice, is a question to be determined by the jury, under instructions by the presiding judge, as to the principles of law involved. For civil malpractice, the physician must answer in damages to his patient; he will not be liable unless the plaintiff shows that he has been injured by the alleged malpractice, and, after a *prima facie* case has been made out against him, the defendant may show that the treatment he adopted was proper or that the alleged injury did not result from it. If the injury complained of be due to the failure of the patient to follow the instructions of the physician, the latter will be relieved, in whole or in part, of liability. For criminal malpractice the responsible party is liable to the state for punishment by fine and imprisonment, or both, and good intent is no defense. If the physician be acquitted of a charge of criminal malpractice he may, in an action for malicious prosecution, recover damages from the responsible party, if he can show that the charge was made without probable cause, and through malice. If, in a civil proceeding, judgment is rendered in his favor, he will be relieved from liability for court charges, but whether he can maintain an action for malicious prosecution is doubtful.

Detroit Medical and Library Association.

Oct. 23, 1899.

DERMOID TUMORS IN GYNECOLOGY.

DR. F. D. SUMMERS read a paper on the above subject, and said that the most frequent seat for dermoid tumor is in the ovary, though it may be found in other parts of the body. One variety develops in parts of the body where there are no sebaceous glands, but the tumor will have a secretion like sebaceous material; another variety develops in places where sebaceous glands and hair follicles exist, and the tumor will be found to contain matted hair and sebaceous material; a third kind is made up of several varieties of tissue, and organs which resemble teeth. The simple tumors contain bone, teeth, cartilage, glands, mucous and serous membrane, nerves, portions of eyes, fingers and mammary glands. The mode of development is not understood, but these tumors are known to result from a displaced blastodermic cell. The Doctor then reported three cases of dermoid tumor in his own practice. The first was a dermoid of the left ovary in a woman 40 years of age. The pedicle of the tumor twisted on itself so that some portions of the tumor were strangulated. The tumor was found to be filled with sebaceous material, tufts of hair, and loose hair measuring ten to fifteen inches in length. The second case was one of dermoid of the left ovary in a woman only 19 years of age. The third was that of a dermoid of the ovary in a woman aged 29 years. These tumors had all been successfully removed by the Doctor.

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SATURDAY, NOVEMBER 18, 1899.

TRANSMISSION OF ACQUIRED CHARACTERS.

Archdall Reid, who appears to believe that drunkenness exalteth a nation in the long run by weeding out its degenerates, and that therefore we ought not to discourage intemperance, has been extensively discussing as a collateral subject, the possibility of inheritance of acquired characters. It seems to be essential to his argument that the parents' drunken habits should not increase the child's proneness to alcohol, so he writes at length against the possibility of the transmission of acquired characters in general. On this subject he speaks with a positiveness that ought to be based on absolute knowledge and an apparent open contempt of those who disagree with him, especially those in the medical profession, who as he says have generally admitted this possibility while the majority of biologists have held the opposite view. He says: "though the whole plant and animal kingdoms have been ransacked, no single instance of the transmission of an acquired character has yet been proved." Is he, as it seems he must be, ignorant of the testimony of Brown-Séquard, Westphal, Romanes, and others when he makes this statement? Brown-Séquard's testimony, confirmed by the observation of others, staggered even Weismann, the inventor of the assumption of germ plasm and its unmodified continuity, and he lamely endeavored to meet some of it by another and purely gratuitous assumption. Indeed, he has apparently altered his original views on this point to some extent. If Dr. Reid is ignorant of these facts, his *ex cathedra* style of statement is unbecoming, to say the least. We have, moreover, still other facts, such, for example, as the percentage of congenital absence of the foreskin in Jews, noted by Talbot and others, that meet the conditions of the transmission of acquired characters. Indeed, it may be a question whether it is a fact that the majority of biologists at the present time hold strictly and without reserve to the Weismann theory. We have seen no census of them as to this point, but we know that there is, or was very recently, a respectable number who did not. The truth is that the germ plasm theory is as unprovable as that of pangenesis, and while it may meet many of the requirements of a working hypothesis in biology, such is not the case in clinical pathology, at least so far as its attendant Weismann dogma is concerned, and the majority of physicians have good reasons for rejection of the latter from their own experience and observations. Even the broad fact that the parent who injures himself by accident, excesses, or error in living is more or less liable to transmit a damaged constitution to his offspring is against it, and when we come to the fact of neuropathic and psychopathic heredity the evidence is overwhelming. It is not necessary that the heredity should be identical, that an acquired form of insanity for example should be transmitted without change from parent to child. The transmission of an acquired neuropathic tendency sufficiently meets the conditions, and it would require a very fine metaphysical distinction, amounting to a mere quibble, to make evidence of such invalid in this question. Identical heredity is, however, common enough to serve the purpose, and it is sufficiently shown by pathologic evidence that acquired characters or defects, properly so-called, can be transmitted.

When we consider the special phase of the question raised by Dr. Reid, the possibility of transmission of alcoholic tendencies, it seems even more strange that the evidence is ignored by him. It is fortunate that in most cases the alcoholic appetite is not inherited, but this unfortunately occurs too often not to be considered as a result and not merely a coincidence. This, however, is unimportant; the main question is, "does alcoholism produce any inheritable defect?" and there is hardly any other proposition better established than this. It makes no difference whether Dr. Reid calls it a modification or a variation, the fact is a bodily vice or defect acquired by the parent is transmitted to the offspring—whether in the form of epilepsy, idiocy, or dipsomania is not a matter of importance. According to Dr. Reid's distinctions, no true modification can be inherited from male parents, and yet all these are commonly so transmitted. He would probably say that in these the hypothetical germ plasm is modified, and that therefore the defects transmitted are not acquired by the parent, in spite of the facts of daily observations by the profession. In that sense the distinction between variation and modification is a purely arbitrary one apparently made to fit the facts to the germ plasm assumption and the dictum that acquired characters are not trans-

mitted. In the same way we might as justly say that the epilepsy, exophthalmus, and missing toes of Brown-Séquard's guinea-pigs, of which Dr. Reid seems to have never heard, were inborn and not acquired, in their parents, in spite of the facts.

We have said nothing of the main thesis of Dr. Reid, that intemperance works its own cure and, therefore, should not be combated, though both his facts and his generalizations are open to dispute. It is saying considerable to say that the Southern Germans, French and Italians have had an ancestral experience of alcoholic excesses which has made them temperate, or that they are not now suffering from the evils of intemperance. Much of our literature on the pathologic aspects of alcohol certainly comes from these regions. The "for revenue only" report of the British Opium Commission, moreover, is not yet nor likely to be good medical authority. If his argument is valid, it will apply equally well to tuberculosis, syphilis, leprosy, typhoid, bubonic plague or any other pestilence; we should not interfere with them but let them work out our salvation their own way and leave the race finally immune. The consummation may be one devoutly to be desired, but it would not be altogether pleasant to count the cost.

INTERNAL BLEEDING.

It is usually with a feeling akin to helplessness that the physician looks on at a case of internal bleeding which is taking place in the brain or viscera. His text-books have recommended ergot and a host of other drugs, but their practical utility has not been demonstrated. In order to be able to control internal bleeding by other than surgical means, which in the present discussion are not applicable, at least three factors should be borne in mind. If one could increase the internal coagulability of the blood to any marked extent some good might come of this procedure. A second means which deservedly has met with little favor consists in the injection, *in situ*, of local astringents. The third method employs pharmacologic agents which can modify the circulatory apparatus. The amount of blood which could flow from a vessel is determined by the diameter of the vessel, the tension of the walls of the vessel and the pressure of the column of blood. On general grounds, it would then appear that an agent that would constrict the blood-vessels could prove of service in the control of internal bleeding. In order, however, to be of any practical value this vasoconstrictor action must involve a comparatively large area, and in order to accomplish such an action a harmful increase in the blood-pressure seems inevitable, and conversely it is also true that those means at command that decrease such blood-pressure almost invariably produce dilatation of the smaller vessels.

Along the lines of the first method indicated, that of altering the internal coagulability of the blood, recent researches are interesting and suggestive. Wright, Dastre, Beck and Nichols and many others following them, by the subcutaneous use of peptones and calcium salts and also gelatin solutions, have demonstrated that the coagulability of the blood can be markedly altered, but up to the present time practical results of sufficient width of application have not been forthcoming, though for certain lines of work their use deserves repeated trial. The second method of injection of local styptic agents has a field of restricted application, but with the newer tannin preparations and with suprarenal extracts it might readily be broadened. The influence of pharmacologic agents acting on the blood-vessels has claimed the attention of many observers but none have so carefully borne in mind in their experimentations the horns of the dilemma of vessel constriction and increased blood-pressure, as has been done by a recent worker, F. Pick[1] of the University of Prague, who has gone over the whole subject most exhaustively. The conclusions arrived at from a long series of intricate experiments are worthy of attention, especially as the number of drugs experimented with is exceptionally large.

Without attempting to summarize all the results, we may say that he finds that certain agents, like chloroform, with lowered blood-pressure, diminish the peripheral flow, while at the same time they increase that from the jugular and mesenteric veins, and others still, like barium chlorid and carbolic acid, increase the jugular flow while reducing that from the abdominal and peripheral veins. Still others present differences in the degree of action on different parts, some seem to act exclusively on the peripheral vasomotors, others on the vasomotor centers.

The practical teaching of his results is that the fact that a certain agent exercises a constringing effect on the vessels of one set of organs is not to be taken as indicating that it will be equally effectual in another part of the body, since it is evident that no one drug affects the various subdivisions of the vascular system with the same efficacy. Of the remedies applicable in cases of internal hemorrhage, ergotin proved valueless, but both hydrastinin and atropin have well-founded claims to therapeutic recognition. Still, the conclusions reached concern only the domains of the peripheral, mesenteric and jugular veins, and whether the same facts hold good for the pulmonary region, which is the field where such agents are most often desired, is still a question for research.

Formulating, as we are accustomed to do for other classes of drugs, the properties needful to entitle an agent to take rank among the hemostatics, we find that: It must either decrease the force of the heart, at the same time lowering the blood-pressure, without a concomitant vasodilation, or it must set up a degree of vasoconstriction intense enough to more than compensate for the increased outflow attending the greatly heightened blood-pressure. Whether or not it is possible to

[1] **Arch. f. Exp. Path. u. Pharm., vol. xlii, 1899, p. 399; "Ueber Beeinflussung des Ausstromen den Blutmenge durch die Gefässweite ändernde Mittel.**

find these essentials united in a single remedy or in a combination of two or more can only be determined by further researches carried out along the same lines.

NATURAL IMMUNITY.

One of the most interesting of practical biologic questions is that of immunity, natural and acquired. Any such protection against disease as exists must be looked on as relative and not absolute, and dependent on the concurrence of a variety of factors. The knowledge on this subject is rather uncertain and inconclusive, and hypothesis has been given correspondingly free rein. Immunity has been variously thought to be due to the presence in the blood and bodily fluids of agencies, partly chemical, partly cellular, antagonistic to the invading micro-organisms or to their toxic products, but neither the phagocytic nor the alexin theory is sufficient to explain all of the phenomena. With the view of reaching a satisfactory explanation of certain obscure points, Baumgarten[1] and his pupils have for some time devoted themselves to a study of this aspect of the subject. It was found, among other things, that the same inhibitory influence was exerted on bacteria by such agents as physiologic salt solution, and other saline solutions, the salts dialyzed from blood into water, water itself, and solutions of gelatin and nutrient bouillon, as by blood-serum. This result is attributed to the change in the environments of the micro-organisms, and the necessity for adaptation to their new conditions. It was found further that blood-serum failed to affect bacteria dried on silk threads. The most important influence, however, was found to consist in a disturbance in the assimilative processes on the one hand, and of osmosis on the other. Different bacteria require different nutrient material for their satisfactory development, and some even thrive on blood-serum. This fact will suffice to explain why some bacteria fail to develop in certain media.

Another phenomenon observed in bacteria exposed to the action of blood-serum consists in contraction of the protoplasm, separation from its cell-membrane, and disintegration into small spherical segments. This process is known as plasmolysis. It could not be induced by exposure of the bacteria to the action of true enzymes. While not directly destructive to the bacteria, plasmolysis is believed to be an important factor in the inhibition of their activity and vitality. Bacteria that have undergone this change are probably exceedingly susceptible to all external influence, such as change of medium, sudden alteration in temperature, etc. Too sudden disappearance of plasmolysis, further, has an injurious effect on the bacteria, which then fail to develop; even rupture may take place. Such influences, it is conceived, must be operative when the bacteria are transferred from serum in which they have undergone plasmolysis to liquefied gelatin, or to hot viscid agar. It was found that plasmolysis disappeared more quickly under favorable nutritive conditions than with a deficiency of nutrient material. Doubt is expressed that natural immunity is dependent on the presence in the blood of bactericidal substances, as it is difficult to believe that such substances, if they exert any chemical action, are without injurious effect on the bodily organism. Bactericidal poisons are also protoplasmic poisons. Natural immunity is thought to depend on failure on the part of the bacteria to find in the immune body a suitable culture-medium, that is, the chemical conditions necessary for their existence and development.

[1] Berliner Klin. Woch., October 9, p. 893.

VIRCHOW'S SEVENTY-EIGHTH BIRTHDAY.

The entire medical profession will join in the congratulations recently extended by the Medical Club of Berlin to Virchow on the occasion of his 78th birthday, and sustain the hope that the activity and the vigor of this distinguished investigator and scientist may long be preserved. Virchow has occupied a professional chair for fifty years.

SURGEONS APPRECIATED.

As has been noted in our news columns, three of the best surgeons in England have been engaged as consulting surgeons to accompany the troops to South Africa. These are Sir William MacCormac, Mr. Frederick Treves and Mr. G. Makins. These names need only to be mentioned, as the reputation of the men as leaders among surgeons is world-wide. Each will act independently, and, according to the *British Medical Journal*, will have the services of a military secretary selected from the surgeons on the spot. The financial reward for the services offered is to be liberal, the payment to each to be at the rate of £5000—$25,000—a year, with allowance for horse, etc. It is certainly an encouraging outlook, when a government appreciates the value of the services of the leading men in medicine, and rewards them accordingly.

DIAGNOSIS OF MALARIAL AND TYPHOID FEVERS.

It might be somewhat epigrammatically stated that the diagnosis of malarial fever and of typhoid fever, both direct and differential, should be ordinarily possible by means of the microscope and the temperature-chart, controlled by a little cerebral cortex. In a particularly interesting and valuable address delivered at the meeting of the New York State Medical Association, held recently in New York City, Dr. Wm. Osler[1] pointed out that any continued fever in the northern and middle United States is almost certainly not malarial, as in those regions the form of malarial fever that occurs is almost exclusively of quotidian, tertian, and quartan intermittency, and the hematozoa are easily recognizable, while the attacks are readily curable by the administration of quinin; while in doubtful cases of typhoid fever the results of examination of the blood and of the urine for the Widal and the diazo reactions should go far to establish the diagnosis.

TYPHOID FEVER AND DRINKING WATER.

The statement made at the recent meeting of the New

[1] JOURNAL, November 4, p. 1165.

York State Medical Association, both by a bacteriologist and a clinician, that the water-supply of New York City is free from typhoid bacilli, and that most cases of typhoid fever seen in that city are imported from without, or are derived through contaminated milk, vegetables, oysters, etc., is noteworthy from the fact that water is conceded to be the most common medium for the conveyance of the disease, and no little credit is due to those by whom the fortunate result mentioned has been brought about. The lesson should further not be lost on others, but should stimulate all communities to secure a small, pure supply of water for its inhabitants, and to keep it so. It is however, only by unremitting watchfulness and control that such a result can be attained. A very considerable experience has shown that this end can be best, most securely, and most economically attained by filtration, although it is a fact that the water-supply of New York City is not filtered, but herein resides the possible danger always present under such conditions of accidental contamination, minimal though this may appear.

THE IMMORALITY OF "CHRISTIAN SCIENCE."

"Fools rush in where angels fear to tread."

Knowing nothing of disease, and virtually denying its existence, it should scarcely occasion surprise that the self-styled "Christian Scientist" should boastfully proclaim his ability to cure the sick and heal the maimed. So deluded have some of the disciples of the cult become, that they are permitting their zeal to carry them beyond the bounds of possibility. With their beliefs we have nothing to do, but when they promulgate the hope, as did a public speaker recently in Philadelphia, that "cancer, consumption, Bright's disease, blindness, typhoid fever, curvature of the spine, locomotor ataxia, valvular disease of the heart, and the alcohol and drug habits" can be cured by "Christian Science," tolerance is exhausted, and steps should be taken to restrain the rabid utterances and the irrational practices of such ignorant and irresponsible persons. Liberty is one thing, and license another, and the crime of even suggesting such obviously false doctrines and immoral practices should be prevented by severe punishment. Those who speak thus should know better, or their ignorance is criminal. Human life must still be considered as too serious and too valuable to be thus lightly dealt with.

TONSILS AS PORTALS OF ENTRY OF TUBERCLE BACILLI.

In our day the questions relating to the mode of spreading and the routes of infection of tuberculosis are discussed as eagerly as questions in the therapy of this disease. It is an accepted fact that the infection occurs most frequently through the inspired air, the primary lodgment taking place on or in the bronchial mucous membrane. Before the inspired bacilli reach the bronchi and the lungs they may, however, be arrested in a number of places, such as the mucous membrane of the nose, the pharyngeal and faucial tonsils, etc. Recently v. Scheibner[1] examined a large series of faucial tonsils to see in what percentage a primary tuberculosis occurred. The result shows that in sixty tonsils examined histologically, with great care and detail, there were four cases of primary tuberculosis, of which three are regarded as due to aspiration and one to introduction of bacilli by way of food; in other words, in 5 per cent. of the tonsils examined there existed a primary aspiration tuberculosis. From this and other studies it may be inferred that primary tuberculosis of the tonsils is relatively infrequent, but it is probably true that the observations are as yet too few to settle the question.

[1] Ziegler's Beiträge, 1899, xxvi, 511.

A LOCAL AND A NATIONAL REPROACH.

The fact that one sinner can destroy much good was well illustrated a few years ago by the discredit of Philadelphia medical diplomas on account of the Buchanan diploma-mill. A similar experience seems now likely to fall to Chicago through the disreputable "Independent Medical College," and its predecessors and successors. It appears, according to the *Times of India*, quoted by a correspondent in the *Indian Medical Record*, that one "Professor" Van Noppen, a coadjutor of the notorious Armstrong and others in this fraudulent concern, has traveled far and wide in India, "leaving a trail of diplomas behind him," and Bombay, Calcutta, Allahabad and other Indian cities can each rejoice in the possession of a coterie of "Chicago graduates." The *Times of India* calls the Indian Government's attention to some official appointees in the plague districts, especially to one or more who append the "M.D. (Chicago)" to their names, and suggests an inquiry. It says: "In view of the discredit which has been cast upon Chicago degrees in general, it would be reassuring to the public if it were officially stated that a diploma which has received implied approval in the pages of a Government publication was bestowed by a duly qualified examining body." The law enacted by the last legislature affecting these diploma-mills was passed none too soon. Their existence was not only a reproach to Chicago and the nation at large, but has been an actual damage to its respectable medical institutions.

ACUTE PARALYTIC DILATATION OF STOMACH.

Acute dilatation of the stomach is not a common condition, and the possibility of its confusion with cystic disease of some abdominal viscus must be considered as remote, but that this is real is illustrated by a case under the care of Mr. W. H. Brown, at the Leeds General Infirmary[1]. The patient, a man 55 years old, was in a state of collapse, and the abdomen was distended, with dulness on percussion between the umbilicus and the pubes. There was great abdominal pain, and bloody urine was evacuated from the bladder by catheterization. Exploratory puncture of the swelling gave exit to thick, greenish fluid, with a peculiar odor suggestive of the contents of a pancreatic cyst. A definite diagnosis could not be reached, but as the patient seemed certain to die if unrelieved, and as the symptoms seemed due to pressure induced by the fluctuating swelling, it was decided to open the abdomen. Even after this was done and three pints of fluid were evacuated, the con-

[1] Lancet, October 14, p. 1017.

dition was still believed to be one of pancreatic cyst. The patient, however, failed to rally, and post-mortem examination showed the apparent cyst to be the dilated stomach, free from obstruction at the pylorus. It will thus be necessary in future in the diagnosis of obscure cystic conditions within the abdomen to bear in mind the possibility of the presence of acute paralytic dilation of the stomach.

NEW YORK CANCER STATISTICS.

Ever since the publication of Professor Roswell Park's statement and prediction in regard to the alarming increase in cancer, the mortality statistics of the disease have been watched with unusual interest by the profession. A number of months ago a report of the number of deaths from cancer recorded in New York City during the first quarter of the present year, as compared with the three months ending Sept. 30, 1898, was published in the JOURNAL. These figures showed that there had been both a relative decrease, taking into consideration the increase in population, and also a positive decrease in the actual number of deaths. In the first quarter of 1899 the deaths from cancer were in the proportion of 1 to 7058 of the population, while in the quarter of 1898 referred to, the proportion was 1 to 6730. The mortality reports for the third quarter of the year, now available, show, on the other hand, that as compared with the corresponding period of 1898, there has been some increase in the deaths from cancer, although this is comparatively slight. During the thirteen months ending September 30, there were 541 deaths recorded from this disease, or a monthly average of 41+ as against 511, or a monthly average of 39+. When, however, the increase in the population, as officially given by the Bureau of Vital Statistics, is considered, the difference is seen to be very small, namely, 1 death to 6562 of the population, against 1 to 6730. In the first quarter of 1899, as already stated, the proportion was 1 to 7058; so when the records of the entire year come to be made up, it seems altogether probable that they will show that there has been no increase in the deaths from cancer in New York City, and very possibly a slight falling off in the mortality from the disease.

ANOTHER DOCTOR IN LITERATURE.

Dr Charles W. Doyle is a new medical light in the literary firmament. He was born in India, received his medical education in London and Edinburgh, and is now practicing medicine for his health and writing stories for a living, in California. Born in 1852, among the foothills of the Himalayas, the time and the place made it necessary that his early life should be surrounded by the horrors of, or as he expresses it, "getting impressions" from, the Sepoy rebellion, and life in the jungle. His father was killed in one of the last battles of the great mutiny. At 18 years of age he was sent to London to study medicine, and spent nearly a year, a "terrible year," he calls it, in Guy's Hospital. He was so wretchedly unhappy there, cooped up in an atmosphere, social and otherwise, so different from that to which he had been accustomed, that when his quarterly allowance came, he used it to buy his passage back to India and to his jungle home. After a little while he was again sent back to Great Britain to complete his medical education, but his antipathy to London was so great that he was allowed to go to Aberdeen, Scotland, where he obtained his medical degree in 1875. He practiced in England for thirteen years, and then, on account of his health, came to the United States, settled in California, and is now living at Santa Cruz, in that state. His reputation has been obtained from his book, published under the Kipling-sounding title, "The Taming of the Jungle." This is made up of stories in which there is a mixture of the "blood and thunder" and the "naughty," that has caught the fancy of the populace of the day. His description of the jungle is vivid and fascinating, and his portrayal of East Indian life such as to make one almost see the country and the people. Another volume from his pen, entitled "The Shadow of Quong Lung,"[1] has just appeared. It is a story of Chinese life in San Francisco, and is as full of murders and villainy as is his first book. It tells of the Highbinders, and of the criminal side of the Chinese in the City of the Golden Gate. Whether our author will ever gain the reputation of the other doctor of the same name, Conan Doyle, is doubtful, although the literature he is giving us is of the kind that seems to be popular.

REPEATERS.

A few medical writers are victims of a reprehensible habit that is not pleasant to contemplate, viz.: the habit of reading the same paper before two or more different societies. When discovered by the profession, as they all are sooner or later, a variety of reasons for their actions occurs to their critics. It is frequently said of them that, being unable to write with ease, they must make one production go as far as possible. This is the most charitable view, even though it involves the inference that only the vain desire for personal advertisement could lead them to risk the affront to an audience that should discover it was being served cold victuals instead of the expected warm sustenance. No doubt these writers never stop to consider the magnificent proportions of a vanity that leads an author to think his own production is worthy of repeated self-production. Of many it is said that they are too indolent to write more than one paper at long intervals, and at the same time too desirous of notoriety to refuse an invitation to read a paper before a society, even though they risk offending their audiences by presenting stale matter. The implied affront to the second and subsequent audiences seems to be entirely overlooked by these gentlemen. Perhaps this is a matter of minor importance, but it is certain that some medical writers would occupy a much more dignified position before their fellows did they not have so high an opinion of their own productions. It is a very different affair when a society requests an author to repeat a paper before a different audience from that which first heard it. That is a high compliment to the author, and it is perfectly proper to reread one under such circumstances. For those who are not thus importuned, the far better course is to refuse all invitations that can not be accepted with an entirely orig-

[1] J. B. Lippincott Company.

inal and new article. Medical editors would rejoice at the accomplishment of this little reform, medical authors would not so often be charged with reading papers for mere self-advertisement, and medical science could hold its head just a little higher before the world of science and letters.

CASE OF TYPHUS FEVER AT PHILADELPHIA.

A case of typhus fever recently eluded the scrutiny of the Federal and the state quarantine officers[1] at Philadelphia, under circumstances that will bear recital. A Russian, who embarked from the steamer *Aragonia* at Antwerp was seized, when seven days out, with fever, headache, and malaise, not reporting to the ship's surgeon for two days. It is not known that typhus fever existed at Antwerp, although it is said that the patient came from a district in Russia where the disease was epidemic. As stated, the man was examined by a surgeon of the United States Marine-Hospital Service, and by the assistant quarantine physician of the port of Philadelphia, and, with another man, who appeared ill, was thought to be suffering from typhoid fever, and he was accordingly sent to the Philadelphia Hospital. Here a diagnosis of typhus fever was made, and the patient transferred to the Municipal Hospital, where he died after two days, the post-mortem examination disclosing lesions which accorded with the diagnosis. The second patient recovered, but his blood yielded the Widal reaction on each of several occasions. The passengers from the steamer had been permitted to depart for their several destinations, but they were followed as far as possible, and it is not known that any other case has broken out among them. Typhus fever is so rarely seen at American ports that the failure to recognize it in an isolated and not well marked case is, perhaps, not altogether an unpardonable error; but in medicine one must always be prepared for the unexpected, and those to whom is entrusted the safeguarding of our doors against the invasion of infectious disease should be ever on the alert, and if error arise it should rather be on the side of safety. The public may think it a hardship to be at times subjected to the rigors and inconveniences of quarantine, when perhaps this may appear an unnecessary precaution, but they must realize that such a step may often be required merely for the better protection of the many.

Medical News.

YELLOW FEVER is dying out. Key West reports two new cases and no deaths, Miami no new cases and no deaths, November 9.

PROFESSORS WILLIAM OSLER and Howard Kelly of Baltimore were last month elected honorary members of the Royal Academy of Medicine of Ireland.

RUSH Medical College, Chicago, is considering the establishment of a monthly journal for publication of scientific work done in the College.

ENGLAND sends three hospital ships to Newfoundland for the deep sea fishermen, and France now has two which go to Iceland and Newfoundland.

[1] JOURNAL, October 21, p. 1051; November 4, p. 1180.

SIR THOMAS LIPTON has announced his willingness to equip the *Erin* as a hospital ship and place her at the disposal of the British Government, to proceed to the Transvaal.

IT IS announced that surgeons at the New York Polyclinic recently extracted a brass bullet from the leg of a soldier just returned from the Philippines. The bullet had become encysted.

AT THE regular meeting of the Board of Trustees of the Cincinnati Hospital, November 6, Dr. J. W. Murphy was elected otologist and larynologist in place of Dr. Max Thorner, deceased.

DR. ARTHUR C. DUFFY of Ireland, son of the president of the Royal College of Physicians and Surgeons, is now in this country for the purpose of making a study of cancer and tuberculosis.

THE FIRST public sanatorium for nervous diseases in Germany has been opened at Zehlendorf, near Berlin, exclusively for the benefit of curable patients, at a minimal expense. Dr. Max Laehr is in charge.

DR. H. G. BARRIE, Trinity, '99, college secretary of the Young Men's Christian Association, has been sent by the Dominion Government with the Canadian contingent to South Africa.

THE RECENT congresses of surgery, internal medicine and urology in France adjourned not to meet again until 1901, omitting their annual congress next year on account of the International Medical Congress at Paris.

DR. ALONZO E. TAYLOR, assistant director of the Pepper Laboratory of the University of Pennsylvania, has been appointed professor of pathology in the Medical College of the University of California. He succeeds Dr. John C. Spencer, resigned.

A CENTRAL organ for communications in respect to the prevention of tuberculosis and sanatoria is announced to commence publication with the coming year. The editors are to be E. v. Leyden, K. Gerhardt and B. Fraenkel. Publisher: J. A. Barth, Leipsic.

THE PROVINCIAL Board of Health of Ontario has dispatched Dr. Hodgetts of Toronto to Windsor and the vicinity of Belle River, where is it reported that there are a dozen cases of smallpox. He will have full authority from the Board to deal with the outbreak.

THE CRUSADE in Pennsylvania against those who sell oleomargarin without a proper label is still being prosecuted. Many violators of the law have been apprehended and a considerable sum of money will in consequence be diverted toward the state treasury.

ACCORDING to the press, Mary Loftus of Brooklyn is the eighth person known to have been infected with smallpox through the medium of handbills given out by a colored employee of a dental establishment of that city, who himself subsequently developed the disease.

DR. WALDO W. HULL, Williamsport, Pa., has been appointed major-surgeon in the Twelfth Regiment National Guard of Pennsylvania, to succeed Major Focht of Lewisburg, resigned. Dr. Hull was recording officer at the First Division Hospital of the Second Army Corps during the recent war with Spain.

MAJOR GEORGE E. BUSHNELL, assistant surgeon-general on the staff of Surgeon-General Sternberg, has, it is said, designed a new army medical chest for use in the Philippines. It is specially designed for those who go on short expeditions and garrison duty in out-of-the-way places.

MRS. JULIA BROWN, formerly of St. Paul, Minn., now of Atlantic City, N. J., has given $5000 to the Atlantic City Hospital.

HEALTH OFFICER GIBBES of Detroit, Mich., November 11 visited those districts near Windsor, Ont., where several cases of smallpox are reported. He says that the disease has not attacked any but non-vaccinated people.

QUEEN VICTORIA, with great pomp and ceremony, opened the Convalescent Home of Clifton, November 15. It is intended as an adjunct to the Bristol Royal Hospital, and cost £100,000—about $500,000—which was privately donated.

DR. CAMARA PESTANA, a well-known bacteriologist, who has recently been devoting his time to the study of the plague, died in Lisbon, November 15. According to the cable, he contracted the disease from dissection of the body of a victim at Oporto.

A WELL-DRESSED young woman was found asleep on a street in Paris one night in October, and was taken to the station and then to the hospital, where she is still sleeping, with heart beats normal—evidently a case of prolonged lethargy. The *Gaz. Med.* adds that no trace as to her identity has yet been discovered.

THE BOARD of Education of Chicago, at its meeting this week, adopted the plan for the examination of school children (see JOURNAL, p. 1232), with a slight amendment. This provides for the appointment of fifty physicians who will receive $50 per month during the time that they are employed, which is presumably for the school year.

THE INDEX of literature in the *Medical Review of Reviews*, New York City, has been elaborated on, all the articles it notes classified. It is a great improvement, and will aid the student and investigator to keep up with the literature on any subject in which he may be interested. It covers the field well, over 900 subjects being mentioned in the last number.

DR. KUETTNER of Tuebingen has been appointed chief of the German Red Cross expedition soon to start for the seat of war in South Africa. A similar expedition is being organized in Holland, by Dr. Korteweg. Dr. Kuettner was with a Red Cross expedition during the Greco-Turkish War, in company with Professor Nasse, since deceased.

A RECENT issue of the *St. Louis Republic* contained a well-written account of a visit to, and the life of, Dr. Alonzo Garcelon, chairman of the Board of Trustees of the AMERICAN MEDICAL ASSOCIATION, and one of the old wheel-horses of the ASSOCIATION. The writer of the article is Dr. I. N. Love. A photograph of the ex-governor and his grandchildren embellishes the page.

WE LEARN that the *Maryland Medical Journal* is to be changed from a weekly into a monthly publication. At the last meeting of the Trustees, Dr. John S. Fulton, secretary of the State Board of Health, and formerly editor of the *Bulletin of Johns Hopkins Hospital*, was elected editor, vice Dr. W. Buckingham Canfield, resigned. The first number of this journal was issued as a monthly—May 1, 1877.

THE MEMORIAL erected to young Dr. Mueller, the victim of the laboratory plague at Vienna last year, consists of a bronze bust on a marble pedestal, with relief representing Marcus Curtius, the Roman hero. It is erected in the eighth court of the General Hospital, near Nothnagel's clinic, in which he was an assistant. A memorial to Bamberger was also recently unveiled in the arcades of the University.

THERE ARE two Canadian doctors in the Transvaal at the present time, attracting some little notice. Dr. F. H. Brennan has all along been an active agitator for reform in Johannesburg, and is now a refugee in Natal, serving with the British forces. Dr. Gillespie has recently been appointed President Kruger's private physician, and it is stated that he attends strictly to business. The former is an Irish Catholic; the latter a Protestant.

IN WISCONSIN the State Board of Control has adopted a resolution condemning the practice said to be prevalent in about fifteen counties in the state, of letting the medical care of the insane in the county insane asylums by contract to the lowest bidder. It is believed that this is the beginning of a crusade against this practice, by which any man having a physician's diploma can secure the work of caring for the county insane by bidding low enough for it.

SWEDEN HAS been very active in her efforts to stop the spread of tuberculosis in that country and offered prizes for the best and second best essays on "Tuberculosis, Its Prevention and Cure." The first was awarded to Dr. E. Nilsson of the Swedish army, and the second to a civilian physician, Dr. R. A. von Post. To put these essays to practical use King Oscar has now ordered that a first edition of 200,000 copies of the Nilsson pamphlet be printed, and 20,000 of von Post's. These will be distributed free to all local boards of health in the Kingdom, also to every parish, province, extra province and state physician.

THE ANNUAL ball of the internes of the various hospitals of Paris and the medical students, was even more "picturesque" this year than usual. In the procession the hospital Enfants Malades was represented by a band of infants five and six feet tall; the Lourcine, by a group from the Revolution bearing the guillotine and the decapitated body of the king; St. Antoine, by a dream of fair women; the medical press, by the belle of the Quartier Latin decked with specimens of the different 216 local medical journals; Bicêtre, by a negress in the "costume de Rarahu," borne on the shoulders of a stalwart youth; Lariboisière, by a Prometheus with the vulture preying on his vitals; etc.

AN INTERESTING question has arisen from a recent conviction for bribing an employee of the U. S. Government, in Philadelphia. One of the grounds on which a new trial has been asked is that one of the jurors was insane. A sworn statement has been issued by a resident physician in Mount Hope Retreat, Baltimore, to the effect that one of the jurors in the case had been admitted to that institution no less than five or six times within the past ten years, and at times suffered from maniacal excitement and auditory delusions and hallucinations. Since the trial ended the juror has suffered from a physical breakdown. The exact condition of the man at the time of the trial may be a nice point in the law.

MME. RIVA MONTI, an Italian medical woman, has been appointed to the chair of comparative anatomy at the University of Pavia. Her works on this specialty are numerous and one obtained the prize of $600 offered by the Lombard Institute, according to the *Jour. de Med de Paris*, October 22. Another Italian, Mlle. Bonsignoria, has received permission from the Paris University to open an official free course in ophthalmology, and has been appointed oculist to the normal schools at Sevres and Fontenay. In Australia the argument advanced by the opponents of the measure to

appoint women physicians in the hospitals was that at certain physiologic periods women are a source of danger to surgical diseases.

THE MEDICAL department of the British Army in South Africa is supplied with ten sets of Roentgen ray apparatus, to be used both in hospitals and on the field. Each set is thoroughly complete and up to date, and contains six focus tubes, a ten-inch field service induction coil, with condenser and commutator; two pairs of conducting cords and four ebonite pillars packed in teak cases; two lithanode portable batteries, with six cells of 30-ampére hours; one fluorescent screen with cryptoscope, a voltmeter, a stand for X-ray tubes, spare wires, a portable cross frame localizer with stand and accessories, a stretcher with tube-holder and plate-holder; nine dozen Edwards' cathodal xxx plates of various sizes, material and apparatus for developing; printing paper and printing frames, and black and ruby fabric.

PRINCE GEORGE of Greece has summoned Dr. E. Ehlers of Denmark to Crete to discuss measures to arrest the spread of leprosy, as there are already between two and three thousand lepers on the island. Dr. O. Cahnheim is to accompany him. The Government of Colombia also invited Dr. A. Hansen to come to Colombia for the same purpose, but his price was so high—$4000, and the same amount to be paid additionally to his family in case anything serious happened to him on the trip—that the National Academy of Medicine protested against this expenditure, considering the impoverished condition of the treasury, and that Dr. Hansen's views in regard to the necessity of strict isolation were well known and could be carried out without him.

THE ITALIANS have shown remarkable enterprise in reconstructing the exposition buildings at Como, destroyed by fire a few months ago. They were replaced on a still more imposing scale and the National Congress of Hygiene and the International Congress of Electro-Biology and Electro-Therapeutics have recently been held there, with a large attendance. The speakers were mostly Italians, which was to be expected in the land of Volta. The review of what electricity has accomplished in biology and therapeutics proved a surprise even to those who thought themselves most familiar with it. Among the most interesting communications were Colombo's new monodic voltaic current, and electric massage, and Sgobbo's demonstration that electricity properly applied increases muscular strength, and that this increase in strength is permanent.

SUES FOR LIBEL.—Dr. Thomas J. Hillis of New York, at the recent meeting of the New York State Medical Association read a paper on "Alcohol as a General Stimulant and Heart Tonic; Its Use to the Animal Economy in Health and Disease." (See JOURNAL, November 11, p. 1233). Some expressions contained in this paper have been utilized by certain advertising whisky firms to their advantage. One advertiser quotes him as saying: "Alcohol is a form of food already digested," without the modifying clause following it, which puts on an entirely different meaning. Dr. Hillis claims to have said: "Alcohol is a form of food already digested, but is not adapted to the normal wants of the body and can not be used at a time and under conditions which render the digestion and assimilation of other nutritious substances impossible." On account of these misrepresentations and alleged unlawful using of his name, Dr. Hillis has brought suit in the New York Supreme Court for libel against these firms and advertisers of whisky, and asks for $10,000 damages.

FOOD ADULTERATION.—On November 11 the Senate Committee on Manufactures, consisting of Senator William E. Mason of Illinois, Senator Wetmore of Rhode Island, and Senator Harris of Kansas, met in New York City for its investigation of food adulteration, pursuant to a special resolution in the United States Senate. Readers of the JOURNAL are already fully informed concerning the labors of this Committee in Chicago and Washington. It is not improbable, from what Senator Mason says, that the outcome of the committee's report to the Senate will be the introduction of a bill prohibiting adulterations detrimental to health, and compelling harmless adulterations to be regulated by the Government, and marked so as to indicate their true nature. The first subject to occupy the attention of the committee is the adulteration of beer, ale and porter.

THE ANNUAL report of Surgeon-General Sternberg gives a statement of the health of the troops, the casualties and losses in battle and in hospital, the aid extended to the sick and wounded and other information of medical interest. The total number of deaths in our armies, including regulars and volunteers, from May 1, 1898, to June 30, 1899, was 6619: 496 men were killed in battle, 216 by accident, 202 died of gunshot wounds and wounds received in action, 2774 from typhoid fever, 476 from malarial fever, 359 from pneumonia, 342 from diarrhea and dysentery, and 185 from yellow fever. As to food supplies, General Sternberg says he considers it wise to go slow in changing the army ration until experience has shown just what changes are desirable. He refers to the agitation over canned roast beef and refrigerated beef, and says that at that time there were on file only two complaints as to the beef supply. The only criticism made by medical officers, he says, is that the ration for the tropics should have less fat and more starch and sugar. An increase of the medical corps is recommended as follows:

> The medical corps of the army, which was scarcely adequate before the War with Spain for our army of 25,000 men, is now entirely inadequate, and should be increased as soon as is practicable. Many of the commissioned medical officers of the volunteer army, and of the acting assistant surgeons, have made rapid progress in acquiring a knowledge of their military duties and have demonstrated their fitness for the military service. In filling vacancies in the medical corps these gentlemen should, in my opinion, have the preference when they come within the established age limit.

The report also recommends the establishment of camping grounds through the country, ready for the reception of troops when mobilized.

CALMETTE'S Paris address on the plague at Oporto attracted a large audience, and his conclusions, indorsed by the International Committee, were hailed with great satisfaction. He asserted that obligatory preventive inoculations of persons residing in the vicinity of an infected house, with general disinfecting measures and isolation, would unfailingly stamp out an epidemic of the plague before it got any headway, while disinfection of clothing and luggage and the presentation of a certificate showing inoculation within fifteen days would be all the quarantine measures needed; inoculations to be repeated in two weeks. He spent most of his time from 9 p.m. to 2 a.m. in the cemeteries, making autopsies of plague victims, and his days caring for the sick and experimenting with animals. He described the infected quarter as "densely crowded, with narrow, dark, unsewered staircase streets, pets, pigs and poultry

frequently occupying the same room with the family or families."

NOT "ROBBED OF SIGHT BY A DOCTOR."—On November 1 the *Chicago Tribune*, and other papers we presume, printed a sensational telegram from Philadelphia which was such a slander on the medical profession that we asked our correspondent in that city to investigate. One paper had big "scare heads" beginning "Robbed of Sight by a Doctor;" another, "Eyesight Destroyed by a Doctor," etc. The item stated that J. H. Askin, who at one time was a financial power in Philadelphia, was now blind and an inmate of the Masonic Home on North Broad Street. According to his story, as told by the newspapers, his eyes were troubling him and his family physician was treating them unsuccessfully, when he called in the aid of another physician. Under the latter's care he at first improved, when occurred an unaccountable change for the worse and the sight was finally lost. Years after he had lost his sight, he says, the physician last chosen came to him and cleared away the mystery. On his death-bed, his old family physician had confessed that he had, by tampering with his medicine, caused his set-back and final result. He did it because he was jealous of the other's success. Our correspondent writes us that he made an investigation into the case and found that there was an aged man by the name of J. H. Askin living at the Masonic Home. On inquiry at the institution, the matron stated that no one believed that story because it is the opinion that his mind is affected. It was further learned that the reporter who wrote the sensational article called while the matron was not in the building, and she knew nothing of the matter until reading the article in the newspaper. If all such were utilized for reportorial purposes, there are, perhaps, few who would escape libel.

Correspondence.

"Morphinism Among Physicians."

HARTFORD, CONN., Nov. 11, 1899.

To the Editor: A paper read recently before the New York State Medical Association on "Morphinism Among Physicians" (see JOURNAL, November 4, pp. 1165 and 1173), has created unusual interest, and brought me a very large correspondence relating to it. A number of critics have asserted, with hysterical dogmatism, that the statement that from 6 to 10 per cent. of all physicians used drugs and opium was gross exaggeration and untrue. An equal number of persons are confident that this is a minimum estimate, especially in certain sections of the country. In other localities it may seem unsupported by observation. In an eastern city of over five hundred physicians, over 20 per cent. used spirits and opium to excess, and yet a prominent physician in a newspaper interview asserted that not 2 per cent. were spirit or drug takers. While the study of 3244 physicians from which these conclusions were drawn may not be sufficient for positive data, yet these conclusions are supported by the experience and opinions of men who are in a position to know something of the prevalence of morphinism and other drug taking. A great many physicians have a limited personal acquaintance with the profession at large, and are not in a position to know very clearly the habits of their neighbors. The drug-taker is always secretive, and often his intimate friends are ignorant of his addiction, and only when chronic stages are reached is it suspected. While it is a sad fact that any number of educated physicians should suffer from drug disease, it is stupid to deny and assert that conclusions from the study of a certain number of cases are exaggerations. It is possible that in certain localities the figures may not be confirmed, and it is always possible that a variable per cent. of drug-taking physicians are concealed in every community. At all events, whatever the actual per cent. may be, the topic is an especially personal one to each physician. Here, as elsewhere, knowledge of the danger may aid in prevention, and realization of its presence will stimulate to greater efforts for escape. My remark in the paper read, "that there was no specific cure," has been turned to say that "there is no cure." This is an error. There are constantly a large number of physicians in the various asylums and homes of the country who are treated successfully for this drug-addiction. Morphinism is a disease, and is curable, but only along lines of rational, scientific medicine. Morphinism among physicians is a peril that can not be treated lightly, and can not be disguised or put aside by denials. We should recognize these unfortunates and turn all our energies to save them before they become incurable and lost forever.

Yours very truly,

T. D. CROTHERS, M.D.

Foreigner's Status in Japan.*

NEW YORK CITY, Nov. 11, 1899.

To the Editor: This is what a foreign physician must expect to find in Japan. The Japanese themselves, in 1879, dismissed all their foreign tutors, feeling perfectly assured in their Asiatic stupidity, that they new everything worth knowing in the medical lore of "degenerate Europe" and America, and will never recur to the services of foreigners. The only chance for a foreign physician to practice his profession in Japan would be in "foreign ports," Yohohoma, for instance, where there are some 3000 foreigners, including their families, mostly English. There are more English—Americans and British—than Germans, everywhere in Japan. The medical field of Yokohama has been most ably filled by Americans for many years, by Dr. Eldridge, who is there now, and before him, for twenty odd years, by the lamented Dr. Simmons. You see that the only chance for foreigners in Japan would be in some other foreign settlement. My practice was in Tokio, where many Americans were employed by the Japanese Government; General Williams of Indiana, the chief adviser of the Treasury Department; General Le Gendre, formerly U. S. Consul at Amoy, chief adviser to the State Department; Dr. Hepburn of California, of dictionary fame; Dr. Antisell, Dr. Rice, Dr. Whitney, etc. In fact, Americans had nearly all the "plum trees shaken" for them in those days. Germany had only the University medical chairs. Most of the pioneer work of opening up medical Japan to Westerners was done by Americans: Dr. Wallace Taylor, Dr. Schmidt, and a host of others, too modest even to seize the ear of a globe-trotter.

From the American Commodore Perry's time, 1854, down to 1879, there have been more American doctors in the foreign service of Japan than Germans. The foreign medical element there to-day is a very small element. There are, of course, some missionary doctors in the various cities, Tokio, Nagasaki, Kioto, Kobe, etc. These are poorly paid by their churches and expect a revenue from the foreign lay element. As I have said, such a revenue can only be a small one.

While I was in Japan it was French officers, and not German, who drilled, and had always drilled, the Japanese soldiers. Before the French officers' time there were no Japanese soldiers. Since the war with China the self-reliance of the Japanese and their feeling of independence of the foreigner, mixed with a congenital contempt and dislike for the foreigner, has increased. If the Japanese had been permitted by Russia, France and Germany to get all they wanted from China the foreigner would have been nowhere. Through the interference of the foreigner they were foiled in a considerable measure, therefore so much worse is it for the foreigner residing in Japan. What makes the situation much worse is that the Governments of the United States, England and Germany have in a fit of ignorant stupidity delivered over their citizens to the mercy of Japanese laws.

I have said enough to put your reader in a condition to judge himself whether it will be for his own advantage ever to go to Japan.

It is said that there has been a great improvement in Japan

*See "Medicine in the Far East," JOURNAL, November 11, p. 1238.

"since I left it;" that is, since all foreigners left it. I am glad to hear that Japan has improved so much. I hope even that the streets are asphalted, or even paved, and that underground drainage is not neglected. Are they still drinking in the Capital the old wooden well water? Do they stick to the venerable urinal on the street corner? Are there chimneys on the houses? You know that these things go to make a civilized city. Asphalt, if flushed, not swept, prevented in some degree consumption. Cholera and typhoid fever have both a horror of pure water. Underground drainage prevents contamination of wells by cholera and dysentery germs. Chimneys do away with the necessity of charcoal fuel, the cause of beriberi, or carbonic acid gas poisoning, and are the first apparent characters which separate a house from a hut.

ALBERT S. ASHMEAD, M.D.

New York City.

DR. MORRIS MANGES has been elected professor of diseases of the chest and general medicine, in the New York Polyclinic, to succeed the late Dr. R. C. M. Page. Dr. Manges is a graduate of the College of Physicians and Surgeons, and has for some time past been connected with the Polyclinic.

IN HIS annual report to the trustees, President Seth Low of Columbia University stated that the interest charges on the debt of the College of Physicians and Surgeons is now approximately $3500.

AT THE annual meeting of the Trustees of the University of the City of New York, November 6, Chancellor Henry M. MacCracken, stated, in his report, that the gifts to the University during the past year were a third of a million dollars in value, and that among them was a finely equipped hall for the Young Men's Christian Association in the east wing of the University and Bellevue Hospital Medical College.

THE REPORT of the secretary of St. John's Guild refers to the building of a new floating hospital, the gift of Mrs. Augustus Juillard, and of a commodious four-story addition to the Seaside Hospital at New Dorp, Staten Island, during the past year, which increased facilities have enabled the Guild to carry on a larger amount of charitable medical work during the past summer than ever before: 62,672 women and children were taken on the floating hospital excursions and 3799 patients treated.

THE NUMBER of children in the New York Institution for the Blind, at the end of the fiscal year just closed, was 169, a decrease from the previous year.

THE TRUSTEES of the New York Eye and Ear Infirmary have decided to erect a pavilion for contagious eye diseases on property adjoining the infirmary.

FIVE WOMEN nurses, in charge of Miss M. E. Hibbard, sail from New York on the *Mesaba* of the Atlantic Transport Line, bound for England, and for the British hospital-ship *Maine* now being fitted out by American women for service in South Africa.

OPERATION ON BROKEN BACK.

The good results obtained at the Roosevelt Hospital in the recent case of Walter Duryea have stimulated other surgeons to emulate that brilliant example. On November 4, a similar operation was performed at St. John's Hospital, Brooklyn, on a telephone lineman, who had fallen from a telephone pole and fractured the spine. It is reported that the operation consisted in removing portions of the eighth, ninth and tenth dorsal vertebræ. The patient rallied well from the operation, and so far has given good grounds for believing that he will be greatly benefited.

SALE OF CARBOLIC ACID.

President Murphy, of the Health Department, has just declared war on the many druggists who sell carbolic acid without let or hindrance. He speaks of them as "suicide venders" and those who "sell death by the ounce," and asserts that as he has the Board of Pharmacy on his side—which, by the way, is the first time in thirty years that the College of Pharmacy has been in harmony with the Board of Health—he expects to win. That there is a just cause for action is shown by the ease with which the drug can be procured; not only is there no need to have a physician's prescription, but the druggists quite commonly make no pretense of even living up to the letter of the Penal Code, which is itself very lax. During the nine months of the present year no less than 127 persons have committed suicide with carbolic acid.

STATE OR MUNICIPAL AID FOR HOSPITALS.

The question of the justice and expediency of hospitals receiving aid from the state or municipality has been kept quite prominently before the public in this city for the past year or two. Comptroller Coler's vigorous crusade against the time-honored custom of allowing many semipublic institutions to help themselves liberally from the public treasury has borne good fruit. A few days ago, at a hearing before the State Board of Charities, the president of the Mt. Sinai Hospital pointed to his institution as an example of the right way of dealing with this matter. He believes in granting state or municipal aid to hospitals only when they bring an appreciable measure of support and advantage to the city by making part provision for care of the sick poor who would otherwise be wholly a burden on the city. Since the incorporation of the Mount Sinai Hospital in 1852, that one has contributed over four million dollars, collected from private sources toward the support of the sick poor, and in all likelihood this amount would otherwise have had to come from the municipality. Last year, for the first time, and owing to a special emergency, the Hospital asked for and received a little aid from the city, but this, he thought, did not in any way vitiate the general principle he laid down.

Philadelphia.

TWO TRAINED nurses from this city have been engaged for the *Maine*, the hospital ship to sail from England, at an early date, for South Africa.

THE BENEFICIARIES of the Charity Ball are: the University and Jefferson hospitals, Southeastern Dispensary Hospital for Women and Children, and the Women's Directory.

THE TOTAL valuation of the estate of the late Dr. Pepper has been apprised at $670,886.63. A life insurance policy of $50,000 is included in the above sum.

DR. ALFRED E. TAYLOR was recently tendered a banquet at the University Club, in honor of his appointment to a chair in the faculty of the University of California, as noted in our news columns.

THE LOAN BILL which guarantees a system of filtration to this city, received a cordial indorsement at the polls on Tuesday last. The question now comes up whether this money will be spent as is hoped for.

THAT INSANITY may result from the excessive use of cigarettes has been discussed pro and con by physicians here during the past week. The case in point was one in which a man committed murder and afterward killed himself. It developed that he was addicted to this habit.

THE DEATHS occurring during the past week numbered 314, a decrease of 67 over those of last week and of 833 over the corresponding period of last year. The principal causes were: apoplexy, 13; nephritis, 18; cancer, 11; tuberculosis, 46; heart disease, 23; suicide, 1; diphtheria (117 cases), 24; scarlet fever (68 cases), 4; typhoid fever (36 cases), 8.

HEALTH OFFICER HELLER desires to begin fighting infectious diseases before they gain admittance into the city, and to this end is urging that the legislature be asked to provide a quarantine boat, fitted up for the reception and detention of all persons suspected of having been exposed, and that arrangements be at hand for the proper fumigation of the effects of such persons. The method advised is modeled after that in vogue in New York.

A CASE of considerable interest from a medicolegal point of view occurred during the past week. A man employed as a driver by one of the stores was charged with having collected $19 and spent it in liquor. The charge was embezzlement, to which the man pleaded guilty. The judge, however, ordered the man to withdraw his plea and instructed him to enter one of not guilty. In the decision the judge said: "Where a firm entrusts with money a person whom they have reason to suspect of intemperate habits, and he does not appropriate the money to his own use or make off with it otherwise than to indulge in the gratification of his habit, employers must understand that it is extremely doubtful whether the crime of

embezzlement can be made out under such circumstances." The decision seems to be viewed differently by lawyers, not only on the opinion's construction, but also on the effect it might have on similar cases.

Chicago.

AN INCUBATOR ward for infants is to be established in the Chicago Lying-in Hospital.

DR. H. B. STEHMAN, superintendent of the Presbyterian Hospital, has left for Pasadena, Cal., where he will remain during the winter, on account of ill health.

ANOTHER imported case of smallpox has been discovered and isolated, which makes the third case brought to the city from Storm Lake, Iowa, within a week. There has been no spread of the disease from the cases recently treated, but the danger period has not yet passed. The Health Department is vigorously pushing the work of vaccination among the exposed in the Greek colony. The work has shown a much larger proportion of unvaccinated than had been suspected, and this is true of more intelligent classes.

SEVERAL months ago it was announced that there was no institution in the city for the exclusive care and treatment of consumptives. Subsequent agitation of the subject resulted in the formation of a committee composed of leading business men for the purpose of investigating the feasibility of establishing a hospital of this character. The Committee has issued a circular letter outlining the general plans of the hospital, and asking cash donations for the building, which will cost $150,000. The hospital will be conducted under the auspices of the Sisters of St. Elizabeth's Hospital, who have donated the site at the corner of Division and Forty-eighth streets.

A COMPETITIVE examination for three positions as externe beginning June 1, May 1 and Sept. 1, 1900, will be held at the Michael Reese Hospital December 20-22. The examination will be both written and oral, on internal medicine, and physiology, surgery and anatomy, gynecology, obstetrics, children's and skin diseases. Applicants must present their class gradings of the past three years, and certificates of character, before November 25. The term of externeship embraces eight months, and satisfactory service entitles the candidate to an appointment as interne for a term of one year.

THE TOTAL mortality for the past week was 440, which shows a decrease of 45 as compared with that of the corresponding week of last year. According to the weekly bulletin of the Health Department, the epidemic contagious diseases, especially diphtheria and scarlet fever, have been more prevalent and more fatal this year than at any time since 1885, and the deaths among those over 60 are largely in excess of the average. This latter increase is said to be due to the prevalence of influenza last spring, but the increased mortality from diphtheria is attributed to "an unaccountable neglect of the antitoxin treatment." It is shown that 5000 cases of true diphtheria have been treated by the medical inspectors of the Department since the introduction of the antitoxin treatment in 1885. Of this number only 322 died—a mortality of less than 7 per cent. Of 3000 cases reported to the Department this year, and not treated by its medical inspectors, there have been more than 600 deaths—a mortality of over 22 per cent., more than three times the rate of all cases treated with antitoxin. The Department urges that all cases of suspicious sore throat be regarded as diphtheria until proven to the contrary.

Baltimore.

THE UNION Protestant Infirmary opened November 13, after extensive improvements.

TYPHOID FEVER is unusually prevalent in this city. One of the students at the Woman's Medical College has just died of the disease, contracted while nursing a family.

PROF. L. ERNEST NEALE and Miss Sadie Sterett Littig, daughter of the president of the National Marine Bank, were married November 4.

DR. IRA REMSEN, Ph.D., of the Johns Hopkins University, returned on the 7th inst., after a three-months absence in Europe, where he went to attend several scientific meetings.

AT THE recent election in Maryland, Dr. Elijah Williams was elected State Senator from Anne Arundel County and Dr. Joshua W. Hering of Carroll County State Comptroller. Dr. John B. Schwatke was elected sheriff of Baltimore. All the above are graduates of the Medical School of the University of Maryland.

THE SEMI-ANNUAL examinations of candidates for license to practice in Maryland were held at the rooms of the Medical and Chirurgical Faculty, November 9 and 10. Twenty-four men and two women took the examinations. Six of the number held the Johns Hopkins University diploma. In this state every one intending to practice has to take examinations, whether holding a diploma or not.

Canada.

TORONTO, Nov. 11, 1899.

HOSPITAL SCANDAL IN KAMLOOPS, B. C.

Kamloops has a small-sized hospital scandal on its hands A couple of weeks ago the hospital board met for the purpose of letting the annual contract for drug supplies, and two physicians charged that the local drug firm which had the contract for the past year, had defrauded the hospital and rendered operations dangerous by supplying a "blue label" chloroform instead of the "white label," which is the proper brand to use for anesthetic purposes. The principal of the drug firm did not attempt to deny the charge, but took refuge behind the statement that the inferior variety was just as good for the purpose as the superior. Dr. Lambert produced a letter from the manufacturers of the "blue label" chloroform, saying it was manufactured from acetone and not prepared for anesthetic purposes at all, but for preparation of liniments, etc., alone. The defendant quoted a number of doctors in British Columbia who were in the habit of using this cheaper variety, stating that they had never seen any ill effects from its employment; one physician asserting that he considered the "blue label" better for the purpose than the "white label" specially manufactured as an anesthetic, as he had had two accidents from the latter and never had any from the other. The druggist then seems to have admitted that on one or two occasions he might have supplied the inferior and cheaper brand at the price of the superior quality, but that it was a mistake on the part of his clerks and was not intentional, and charged that if this did really occur that his predecessor in the firm had done the same thing; but this was subsequently disproved by the physicians producing an affidavit from the former proprietor of the drug company that the charge was foundationless. The hospital authorities have awarded the contract to the same firm for the ensuing year; but there seems to be no doubt that the firm will supply the proper "white label" in the future.

ONTARIO MEDICAL COUNCIL AND LODGE CONTRACT PRACTICE.

During the last meeting of the Ontario Medical Council this subject came up for discussion. From the annual announcement of the Council, which has just reached the profession, it would appear so far as the Council as individual members is concerned, there are no two opinions in regard to this disgraceful practice. A committee was first appointed to report before the final sitting of the Council in regard to the matter, and that committee elected Dr. Barrick of Toronto, a very strong opponent to the nefarious system, as chairman. This committee brought in an interim report and asked that they be empowered by the Council to gather information for the space of one year and at the next meeting of that body present their report in full. A long and animated discussion was precipitated, and it transpired that the committee had in mind the idea that a circular letter ought to be sent to every member of the College of Physicians and Surgeons in the province asking them a certain list of questions as to their opinion on this subject, and another circular letter addressed to the secretaries of all subordinate lodges of every fraternal organization which had lodge contract practice engrafted as a portion of their constitutions. The matter was finally shelved by the adoption of the amendment to the adoption of the report of the committee.

Book Notices.

ELEMENTS OF VITAL STATISTICS. By Arthur Newsholme, M.D., Lond., F.R.C.P., Examiner in State Medicine to the University of London, and in Preventive Medicine to the University of Oxford. Third Edition. London: Swan Sonnenschein & Co., Ltd. New York: The Macmillan Company. 1899.

This work is a third edition, the first having been published in 1889, and it forms almost entirely a new book, although the general plan remains as hitherto, as the author states in his preface. He has left out many statistical tables and inserted a few. In its present form the book will maintain the credit of the former editions in an enhanced degree. In fact, as a convenient work for reference, and a guide to those working in vital statistics, it stands almost alone in our language, no other recent work certainly approaching it or taking its place. The author points out many of the fallacies of vital statistics, and in the close of the work gives a special chapter to this subject, which ought to be carefully studied by anyone attempting work in this line. All we can say in criticism is that we wish he had done a little more, as there is an infinite number of conditions in which errors creep in, and while it would be impossible to include them all, and perhaps not more than he has given, there are still one or two points which we think he might also have made. Thus, he does not especially mention the error due to special conditions of population that exist in some countries rather more than in Great Britain, at least not as fully as we could have wished. At the present time when so much is made of the increasing frequency of certain diseases, such cautions as are here given are especially valuable. We can cordially recommend this work in every respect, and while the author modestly admits that errors may have crept in, we believe with him that they are very few.

AN ESSAY ON THE NATURE AND CONSEQUENCES OF ANOMALIES OF REFRACTION. By F. C. Donders, M. D., Late Professor of Physiology and Ophthalmology in the University of Utrecht. (Translated under the supervision of the Kirschbaum School of Languages and Bureau of Translation of Philadelphia.) Revised and Edited by Charles A. Oliver, A.M., M.D., Attending Surgeon to the Wills' Eye Hospital, Philadelphia. Pp. 81, with portrait and other illustrations. Philadelphia: P. Blakiston's Son & Co. 1899.

In bringing out this interesting essay, the editor has been animated by a desire to do honor to a man who looms up among his contemporaries. We may safely call Donders a great man, for he did much to place ophthalmology on a truly scientific plane, and in this little brochure are presented the principles of refraction of the eye that have formed the basis for the elaborate work done in subsequent decades. It will certainly prove of interest to the ophthalmic student, and we may thank the editor that he has shown a "desire to give a great man greater honor and to offer such a man's work an increased amount of usefulness."

THE NERVOUS SYSTEM AND ITS CONSTITUENT NEURONS. By Llewellys F. Barker, M.B., Tor., Associate Professor of Anatomy in the Johns Hopkins University. Illustrated. New York: D. Appleton and Company. 1899.

The original suggestion of this work was found in a series of articles by the author which appeared in the *N. Y. Medical Journal* during the past two or three years. The subject soon outgrew the periodic publication and the present volume is the result. The introductory chapters are those that have already appeared, revised and brought up to date, but the bulk of the book is new. In the first part of the volume the newer conceptions of the histology of the central and peripheral nervous system are reviewed. Dr. Barker has no notion that the discoveries of Apathy and Bethe will seriously affect the neuron theories, but gives considerable space to them in his introductory chapters. So far as we can judge, he makes his case, and it seems to be hardly doubtful that the neuron is a permanent conception in our views of the anatomy of the nervous system.

The greater part of the work is new and is devoted to the description of the neurons in their relations to each other, their grouping and connections in the complex nervous system of the higher organisms, man and his fellow mammals. This forms a treatise of nervous physiologic anatomy and physiology, more complete and up to date than any other that we know of in our language, or in fact in any other. While research is so active in this direction, it is impossible for any work to go long without revision, but even if there is no future edition, this will serve for a useful landmark—a text-book from which all further and later studies may start. The work is full of illustrations, the adapted ones duly credited, but a large proportion original, and all excellent. The literary references are also very full and complete. Taken altogether it is a most valuable work of a class that is not as fully represented in our literature as one could wish.

ASTHMA: RECENT DEVELOPMENTS IN ITS TREATMENT. By Ernest Kingscote, M.B., C.M., L.R.C.S., Edin.; Fellow of the Medical Society of London, etc. Illustrated. London: Henry J. Glaisher. 1899.

This work gives a special statement of the author's views of causation of asthma, and more than half of the work is devoted to a consideration of cardiac dilatation, with the author's ideas in regard to it and its connection with the disorder, the subject itself being comparatively a minor matter. Taking it altogether, we are not exactly favorably impressed with the work, though it may contain some facts and ideas that will be of service. The publisher's part has been very elegantly done.

CHIRURGIE DE LA PLEVRE ET DU POUMON. Par Felix Terrier, Professor a la Faculte de medicine de Paris Chirurgien de l'Hôpital Bichât, and E. Reymond, Ancien Interne des Hopitaux de Paris. 67 Illustrations. Paris: Felix Alcan, Editeur. 1899.

The authors of this work have reproduced here the lectures of Professor Terrier, given at the medical school of Paris in 1895 and 1896. The different chapters are devoted to thoracentesis, purulent pleurisy and pleurotomy, thoracoplasty, surgery of the pleura, the treatment of wounds of the lungs, pneumotomy and pneumectomy. The work is well illustrated and seems to be, within its compass, a very excellent treatment of its subject.

RISE AND DEVELOPMENT OF LIQUEFACTION OF GASES. By Willett L. Hardin, Ph.D., Harrison Senior Fellow in Chemistry in the University of Pennsylvania. New York: The Macmillan Company. London: Macmillan & Co., Ltd. 1889.

The general interest that has been aroused within the past year or two in regard to the subject here treated ought to give such a work rather an extensive range of readers, more, indeed, than might be expected for a work that is necessarily so technical in its nature. The author has done a service to the public, especially to that part thus interested, in collecting the scattered facts from the literature and bringing them together in this accessible and clearly stated form. He has judiciously changed his first intention, as he says, and does not attempt to give a complete account of gases at low temperature and their industrial application. The book is well illustrated and will doubtless be well received.

Deaths and Obituaries.

ERNEST DIESE, M.D., a graduate of the University of Jena, who for many years practiced his profession at Willow Grove, Pa., died in Philadelphia, October 31, aged 78.

DANA WOODBRIDGE, M.D., professor of anatomy and physiology in Williams College, died November 5. He was a graduate of the College of Physicians and Surgeons, New York City.

C. R. REED, M.D., Middleport, Ohio, a graduate of Jefferson Medical College, Philadelphia, 1853, for a number of years a member of the ASSOCIATION, died October 31, aged 73.

CHARLES INSLEE PARDEE, M.D., New York University, 1860, died November 3, aged 61 years. He was long a resident of New York City, dean of the old University Medical College for

twenty-five years, a Civil War veteran and a specialist in diseases of the eye, ear and throat

ALFRED THOMAS DRURY, M.D., Castleton Medical College, Vt. (now extinct), 1857, died at his home in Brooklyn, N.Y., November 1. He was born in Hull, England, Jan. 8, 1830, and was the son of a wealthy coal dealer. He was active in practice until about five years ago.

THOMAS L. JENKS, M.D., Harvard, 1854, formerly a police commissioner of Boston, dropped dead October 31, in the superior criminal court of that city, where he had been called as a witness. He was president of the North End Savings Bank.

EDWARD BLEECKER, M.D., College of Physicians and Surgeons, New York City, 1865, died at his home in Whitestone, N. Y., November 5. A descendant of Van Vancy, the first recorder and second mayor of Albany, N. Y., he was born in that city, Jan. 9, 1844. The greater part of his life was passed in Whitestone, where he took an active interest in village affairs, serving as a member of the Board of Education for twenty-five years. He also was a promoter of the Flushing Hospital and the first president of its medical staff.

JAMES L. TUCKER, M.D., Chicago, a graduate of Harvard in 1867, died at his home, November 12, aged 59 years.

J. J. CARROLL, M.D., Washington, D.C., died November 5, aged 40 years. He was a graduate of the Medical Department of Columbian University, serving as a resident physician at the Children's Hospital two years thereafter. He was then appointed surgeon in the army and for seven years served at western army posts, thence returning to Washington. His death is said to have been due to blood poisoning contracted during his surgical work in the army.

JOHN A. MCCREERY, M.D., aged 50 years, and one of the attending physicians at St. Vincent's Hospital, New York City, died November 10, after an illness of about three months. Dr. McCreery was graduated from the Bellevue Hospital Medical College in 1871, and, going to London to continue his studies, was graduated from the College of Physicians and Surgeons there in 1874.

SURGEON MAJOR SAMUEL Q. ROBINSON, United States Army, died at Hot Springs, Ark., November 6. He was born in Massachusetts, and was appointed an assistant-surgeon on Jan. 1, 1877, a captain assistant-surgeon, Jan. 9, 1882, and a surgeon major, May 2, 1896.

WALTER J. HOFFMAN, M.D., died at his birthplace in Reading, Pa., November 8, aged 53 years. He was a graduate of Jefferson Medical College, and was formerly identified with western scientific expeditions and the Smithsonian Institution, as well as being U. S. Consul at Mannheim, Germany. He also received decorations from a number of foreign rulers and scientific bodies.

DAVID K. ALLEN, M.D., Freetown, N.Y., died October 28, aged 72....John Bainbridge, M.D., Nashville, Tenn., October 28, aged 85....George W. Brundage, M.D., Geneva, N.Y., September 23, aged 77....Daniel D. Donovan, M.D., Troy, N.Y., October 27, aged 28....P. L. Fritz, M.D., Alexandria, Ind., October 28, aged 35.....John W. Kelly, M.D., Washington, Pa., October 30, aged 76....W. C. Taylor M.D., Tangipahoa, La., October 24.

RESOLUTIONS ON DEATH OF DR. MAILLY.

The following resolutions were adopted at a meeting of the Bridgeton (N.J.) Hospital staff, November 1. (See JOURNAL, September 9, p. 682):

WHEREAS, The death of Dr. Hamilton Mailly has taken from the hospital staff of the Bridgeton Hospital one of its most valued members and,

WHEREAS, During the time that Dr Mailly had served on the staff he had by his professional ability and attainments, by his unfailing courtesy and his always ardent devotion to what he believed to be right given character and dignity to the honorable profession of which he was a member;

Resolved, That the staff place on record their sincere regret at his untimely death as well as their high appreciation of his many qualities of mind and heart which led them to respect him as a man and honor him as a physician.

[Signed] JOHN H. MOORE,
DAVID H. OLIVER,
ELLSMORE STITES.
Committee.

New Instrument.

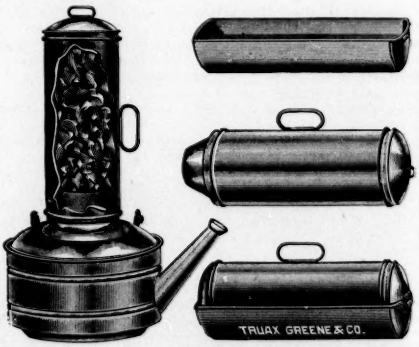
A NEW STERILIZER FOR COUNTRY AND PRIVATE PRACTICE.

BY HAMILTON FISH, M.D., OURAY, COLO.

In an endeavor to obviate the lack of facilities of the practitioner who is unable to obtain the steam sterilized materials required by the asceptician in country practice, I have devised a steam sterilizer that is adjustable to the ordinary household teakettle and I believe that it will appeal to those practitioners who are desirous of obtaining the results attainable only by a strict adherence to the principles of an aseptic technic. The apparatus is remarkably simple, inexpensive, easily portable—it being no larger than a physician's gripsack—and its sterilizing properties as efficient as the more expensive and cumbrous apparatus. Its great advantage is that it is easily portable and always ready for use where a teakettle of boiling water is obtainable.

Dressings may be packed and sterilized in this instrument at the physician's house and kept ready for immediate use in the dressing of accidental injuries or for the performance of emergency operations at a distance.

The apparatus consists of a double copper cylinder, two removable wire meshed frames—between which are placed the materials for sterilization—a cone-shaped adjuster fitting to the cylinder so that, when in use, it may be adjusted to the mouth of any sized teakettle, and when not in use is reversible within the lower end of the cylinder, and two tightly fitting dome-shaped covers.



When it is to be used for the sterilization of dressings, towels, etc., the articles are placed within the cylinder and rest on the lower wire frame, the upper frame being placed over them, the top cover applied, the adjuster removed and adjusted to the lower end of the cylinder and to the mouth of the teakettle. The kettle spout is plugged with a tightly fitting cork and the steam under pressure passes through the dressings and congeals on the inner surface of the dome-shaped cover, which it follows to the sides, and then the water of condensation is returned through the space between the cylinders to the kettle. The dressings are found quite dry after a sterilization of from one-half to one hour, but should they be too moist the adjuster and top cover may be removed and the cylinder placed within the stove oven until they are dry.

During an operation the dressings, frames and adjuster may be removed and the cylinder filled with boiling water, to which has been added about a dram of common salt to the pint of water, the covers fitted tightly, and placed under the cold-water tap. When the boiling water has reached the proper temperature for use in the wound, it can be poured from the cylinder as from a pitcher. This enables the surgeon to obtain, at a moment's notice, all the sterilized physiologic salt solution required without the addition of water that is contaminated, for cooling purposes. The cylinder fits snugly into an instrument tray which is always ready and serviceable for the sterilization of instruments on the kitchen stove.

Miscellany.

No Quack Advertisements.—Says an exchange: "There is at least one daily religious newspaper in the world. It is the *Montreal Witness*, of Canada. It has 200,000 readers and is edited by the son of a sturdy Scotchman, John R. Dougall. It sacrifices about $50,000 a year because it refuses to advertise quack medicines, and theater and sporting gossip. To its wholesome influence is ascribed the fact that none of the Canadian dailies issue Sunday editions."

Puncture of the Bones.—Tillmanns urged, at the German Congress of Physicians and Naturalists, that surgeons make more general use of puncture of the bones for diagnostic purposes. Most valuable information may be derived from this harmless procedure. Any point on the bone and the joints can be punctured. His method is not to incise the soft parts, but to insert a delicate steel needle connected with an electric motor, directly through the skin into the bone.

Sequester from Acute Osteomyelitis.—Mueller has three times observed, in an experience of four hundred cases of this affection, a circumscribed callous formation over a sequester from the joint or bone, simulating a malignant sarcoma, according to *Wien. Klin. Rund.*, October 15. The patient has usually forgotten the acute painful affection of the bone or joint involved, which occurred in one case twenty years before, and does not recall it until the sequester is found at the operation. The tumor, in two cases, the size of half an apple, was slightly movable.

Examinations in New Hampshire.—The sixth examination for licenses to practice medicine in New Hampshire will be held at the State House, Concord, Dec. 14 and 15, 1899, beginning at 8 o'clock a.m. All physicians who were not in practice in this state on and before March 16, 1897, must pass the examinations in order to receive a license to legally practice their profession. Application blanks must be filled out and in the hands of the regent by December 10. For information, address the Department of Public Instruction, State Library, Concord.

Protection of Medical and Surgical Discoveries.—The International Association for the Protection of the Rights of Writers and Artists held its twenty-first annual congress at Heidelberg this year (*Independ. Belge.*, October 1), and one of the speakers, G. L. Pesce, made an urgent appeal to extend the scope of the Association to include the protection of the rights of intellectual invention, whatever its manifestations, and even before they are actually realized in concrete form. "How many discoveries and inventions, and of the most extreme importance, made by physicians, chemists, etc., have never been and can not be patented nor protected by any legal method!" "Human thought—as precious as life—has the same right to protection as life itself, and during every period of its development, from its first conception to its actual birth."

Disclosures Prohibited by Statute.—The disclosures prohibited by section 834 of the New York Code of Civil Procedure, the second appellate division of the supreme court of that state says, are only such as are necessary to enable the medical man to act as physician or surgeon. The prohibition does not extend to admissions made by a party to an action of facts which have, and can have, no possible relation to the professional conduct of the medical or surgical practitioner. Therefore, it holds, in the personal injury case of De Jong vs. The Erie Railroad Company, that, as nothing that the plaintiff could say in regard to his observation of the train which struck him, or his failure to observe it, could, by any possibility, have been material or useful to the attending surgeon in the latter's treatment of him as a patient, whatever statement the plaintiff made on that subject was wholly outside the case in its medical or surgical aspects, and was not a privileged communication.

Difficult Labor from Exaggerated Constriction of the Ring of Bandl.—Bué has collected a number of observations of intrauterine putrefaction of the fetus with the frightful maternal mortality of 60 per cent. (*Nord. Med.*, October 15.) On analysis the extreme gravity of shoulder presentations becomes evident; the putrefaction is exceptionally rapid in this case, probably on account of the penetration of air into the uterine cavity, and the difficulties of obstetric maneuvers are increased in these circumstances. Extreme constriction of the ring of Bandl is peculiarly liable to cause trouble in the second stage of version with shoulder presentation. This cause of dystochia may occur with a putrefied fetus and a slight degree of physometra. It may be so extreme as to prevent delivery by the natural route and render a Porrro necessary. This intervention may also be advisable in cases of putrefaction when the maternal organism is already profoundly intoxicated, in order to remove the infectious focus entirely. The Porro seems to be especially indicated in case of trunk presentation which is so frequently fatal in its results.

Simple and Rapid Method of Counting White Corpuscles.—Lyonnet (*Lyon Medical*, p. 431) utilizes the property of acetic acid to dissolve the red corpuscles, as the basis of his method. Two graduated pipettes are necessary, one to receive the drop or drops of blood to a certain mark, the other filled with seven times this amount of a 6 per cent. solution of acetic acid. The blood is then poured from the first into the second pipette and well mixed; the red corpuscles are rapidly destroyed. A drop is then transferred from the pipette to a square in the Hayem-Nachet counting apparatus, and examined with the microscope, taking the average of several drops. The little square in this apparatus corresponds to a cube of a fifth of a millimeter and multiplying by 125 gives the proportion for a cubic millimeter. But the blood only forms one-eighth part of the fluid, hence the number of white corpuscles noted in the drop must be multiplied by eight to estimate the number of corpuscles in a drop of pure blood. The formula is therefore 125x8=1000. Thus, the number of white corpuscles counted in one square of the apparatus, multiplied by 1000, gives the total number of white corpuscles in a cubic millimeter of the blood.

Craig Colony Prize for Original Research in Epilepsy.—Last year Dr. Frederick Peterson, president of the Board of Managers of the Craig Colony for Epileptics, offered a prize of $100 for the best original contribution to the pathology and treatment of epilepsy. The seven papers received were submitted to three members of the New York Neurological Society, who reported that no award would be made this year. Some of the essays submitted failed to comply with the conditions of the competition, others were more limited in scope than a successful essay should be. The prize of 1899 not having been awarded in accordance with the report of the committee, Dr. Peterson now offers a prize of $200 for 1900, under similar conditions. This will be awarded to the author of the best contribution to the pathology and treatment of epilepsy. Originality is the main condition. The prize is open to universal competition, but all manuscripts must be submitted in English. Each must be accompanied by a sealed envelope containing the name and address of the author and bearing on the outside a motto or device which is to be inscribed on the essay. All will be submitted to a committee, consisting of three members of the New York Neurological Society, and the award will be made on its recommendation, Oct. 9, 1900. Manuscripts should be sent to Dr. Frederick Peterson, No. 4 W. Fiftieth St., New York City, on or before Sept. 1, 1900. The successful essay becomes the property of the Craig Colony and will be published in its medical report.

Surgical Treatment of Exophthalmic Goiter.—While exophthalmic goiter is not a fatal disease, except in the rare cases of acute onset and fulminating course, it is sometimes most protracted in duration, and it may prove a most troublesome condition. The most successful general treatment consists in the administration of remedies like strophanthus and the bromids, in conjunction with extra rest, a quiet mode of life, and a milk diet. Thyroid extract does harm rather than good, and thymus and splenic extracts, which have also been recommended, are not to be depended on. When medicinal measures have failed, or when the symptoms become alarming, by reason of pressure exerted by the enlarged gland, of excessive tachycardia, of diarrhea, or of asthenia, surgical treat-

ment may be resorted to. Various operations have been suggested, and the results, as given by Rehn (*Berliner Klin. Woch.*, Oct. 15, 1899, p. 929) at a recent meeting of the society of German Naturalists and Physicians at Munich, show that among 177 cases, in which the resection of the goiter was practiced, recovery ensued in 57.6 per cent., improvement in 26.5 per cent., death in 13.6 per cent. and failure in 2.3 per cent. Of 32 cases in which resection of the sympathetic nerve was practiced, recovery ensued in 28.1 per cent., improvement in 50 per cent., failure in 12.5 per cent. and death in 9.3 per cent. Of 14 cases in which ligation of the thyroid arteries was practiced, recovery ensued in 2.4 per cent., improvement in 50 per cent., and death in 28.6 per cent. Of a total of 319 cases operation was followed by recovery in 51.8 per cent., by improvement in 37.9 per cent., by death in 13.1 per cent., and by failure in 4.1 per cent.

Report of German Commission Sent to India in 1897 to Study Plague and Leprosy.—Among the points noted in an abstract of the report (*Muench., Med. Woch.*, October 10) recently published in the official bulletin, is the fact that the plague bacillus is very sensitive to rapid desiccation, but resists slow drying at a low temperature. Moist heat is also very destructive, killing it at 55 C. in ten minutes and immediately at boiling point. One per thousand sublimate kills it at once; 5 per cent. carbolic acid in one minute. Dogs and pigs are quite resistant to the plague, and birds are entirely immune. Effective vaccin could only be obtained with very virulent cultures. The improvement on the Haffkine method consists in subcutaneous injections of extremely virulent agar cultures killed by being heated to 55 C. during two days, which allows more exact dosage and seems to retain the immunizing substance in more perfect conditions. The portion of the work relating to leprosy announces that the one constant sign of leprosy, the first to appear and last to vanish, in all varieties and stages of the disease, is an ulceration in the nose or the evidences of former ulcerations, which always contain numbers of the bacilli, usually highly virulent. Even after all other signs of leprosy have disappeared, the nasal lesion may contain virulent germs for years. Itching in the nose, catarrh, swellings, violent nasal hemorrhages, are frequently the initial symptoms of leprosy and may exist for years before any other symptoms manifest themselves. In examining for leprosy this nose lesion must be sought first, especially in children of leprous parents, etc., and no leper must be considered cured and harmless for his environment until this nasal lesion has entirely healed and is sterile. All therapeutics of leprosy must aim to cure this nasal lesion as its chief task. All the other lesions of leprosy have a tendency to spontaneous healing; this alone persists with extraordinarily rebellious obstinacy.

Malarial Fever, So-Called, Communicating Typhoid.—The secretary of the Michigan State Board of Health writes us that he has received a letter from a resident of that state, in part, as follows:

A creek runs by and is fed from a stream issuing from the cemetery. The family living on and taking care of the cemetery drinks water from the cemetery well, and has had typhoid fever in the house for nearly a year. The slops from the house all go to the creek. A neighbor's dairy cows pasture in the valley of the stream. The owner of the cows has typhoid fever in his house, and sells milk. One family has four cases and has lost one, the mother. Relative to the sickness in the family of the sexton, the attending physician, while diagnosing the sickness as malarial fever, states: "The two girls had fever just two weeks and no fever afterward. The boy now sick has been sick two weeks." Relative to the sickness in the family of the milkman, the attending physician says: "I was called to the house and found two cases of fever, one malarial, and the other showed symptoms of typhoid, for which I placarded the house, to take all precautions. The malarial only lasted six days. During my absence another doctor was called and has had three cases which ran from two to three weeks, none of which he called typhoid." The health officer, who was the attending physician to the family having four cases, reports: "The family getting milk from this house developed four cases of typhoid fever, and the fever was of septic type. The mother was delirious from the first, and died on the twenty-first day. . . . Now what are you going to do if the doctor in attendance does not call the disease typhoid?" Acting under instructions from the secretary of the State Board of Health, to "Placard 'typhoid fever' all premises infected with fever of doubtful origin continuing more than seven days," the health officer investigated and reported: "In my opinion it is a case of typhoid, although it does not present all the symptoms. The case is now seventeen days along. . . . everything goes to show that the cases are typhoid." This patient was in the milkman's family and was taken sick the same time the four were in the family of the milkman's patron. In another letter the health officer says: "I know that my four cases with one death contracted the disease from this 'malarial' house. I have placarded the house." A local paper, in commenting on the outbreak and the action of the health officer, says: "There may be instances where a seeming injustice is done in isolating fever patients when not having an infectious disease, but it is not as great an injustice to quarantine one family as it is to jeopardize the health of the whole neighborhood by not complying with the rules laid down and thus preventing any possibility of disease spreading through a difference of opinion among physicians."

Reverses Judgment.—The supreme court of Wisconsin has reversed the judgment which the plaintiff obtained in the malpractice case of Kickhoefer vs. Hidershide, on the ground that a verdict of $2000 would be very clearly excessive for such degree of impaired use of the hand and fingers as was shown by the evidence. To go back a little, it seems that the defendant, a physician, attended and treated the plaintiff for a fractured wrist from the time of a fall, February 9, to April 26 following, at which time he was discharged. The wrist was then seriously distorted, and its use impaired, the arm atrophied, the shoulder considerably stiffened, and the hand and fingers stiff, and somewhat shrunken. She received treatment from other physicians, including a severe surgical operation to straighten and mobilize her wrist, and at the time of trial had in a large measure, though by no means entirely, recovered. She sued the defendant for malpractice, alleging all of the above mentioned results as the basis of damages, and recovered verdict and judgment for $2000, from which the defendant appealed. Now, first of all, the supreme court says that the evidence wholly failed to show that the disabled condition of either the shoulder or the wrist, or the atrophied condition of the arm, was the result of any negligence or malpractice on the part of the defendant, and were not the natural and legitimate results of the accident suffered by the plaintiff, and for which the defendant was not responsible. This it follows with its decision, as first above stated. Cases of this sort, where the very substantial injury and extreme suffering on the part of the plaintiff are so apparent, the supreme court goes on to say, appeal strongly to the sympathies both of court and jury, and in the trial the duty upon the court is all the greater to very carefully consider the relationship between the treatment of the physician and the results to the patient, and to guard against submission of the case to the jury in such form that their sympathies may have an opportunity to visit upon the defendant liability for those injuries which are but the unfortunate result of the accident itself, and not of his treatment.

Physical Development of School Children.—Dr. R. Tait McKenzie, demonstrator of anatomy at McGill and medical examiner for the Montreal Amateur Athletic Association, read an important paper on this subject before the Protestant Teacher's Association of Quebec at their recent meeting. He compared the conditions surrounding the life of the boy of today and the boy of yesterday and dwelt on the fact that the city child has very little opportunity in the way of playgrounds and "chores" in which to cultivate a good physical development. He deprecated "forcing" and overwork, both physical and mental, at this period of life, fearing a permanent injury in the way of disease and deformity; and emphasized the importance of good feeding, healthy surroundings and abundant regulated bodily exercise. As to physical training in the schools, there should be enough periodical exercise to counterbalance the constant strain of discipline necessary to keep children quiet and orderly. Some such system, after every fifteen minutes' study, as five minutes of free extension movements, to relieve the muscles and correct collapsed posture, should be instituted; and once a day at least, there should be a half hour devoted to brisk exercise, hard enough to produce a free flow of perspiration, with a subsequent change of

clothing, and a tepid or even a cold bath. The Doctor thought there was a necessity for medical supervision over school children, as irreparable damage might be done by too severe exercise in those who were not up to the normal physical standards. Military drill is unfit for physical training, as it is not designed for that purpose, the constrained positions and long waits being unlikely to improve the figure of the growing lad. In the Montreal High School for boys, a medical examiner attends at special hours and makes an examination of the heart, lungs and muscles, noting any physical deformity or defect, and a certificate of fitness is then given for participation in gymnasium work. A certificate is accepted from the family physician on a special form, which is filed and kept in the high school building. Some such system should be introduced into all schools, and the medical supervision should extend to the inspection of the rooms, the position of the desks and seats, and all other matters relating to school hygiene.

International Congress of Medical Officers of Life Insurance Companies.—Matters of great importance to life insurance companies and medical examiners were discussed at this successful congress, held in Brussels in September. From *Semaine Medicale*, October 4, and other foreign journals, we abstract the following: Wybauw of Brussels stated that applicants suffering from constant albuminuria should always be refused, and also those suffering from albuminuria that has persisted six months after an infectious disease. In case of cyclic albuminuria the candidate need not be rejected if less than 30 years old, free from hereditary and infectious antecedents and the amount of albumin in the urine not over 0.5 per cent., under condition of returning for examination later and paying an extra premium. If the albuminuria persists over five years the company should refuse to continue the policy. Lebœuf refuses every applicant with glycosuria with the single exception of those who had previously had an accidental glycosuria of short duration, disappearing without recurrence for at least five years, and free from personal or hereditary trait and nothing abnormal in the formula of the urine. Salomonsen of Copenhagen rejects every applicant with glycosuria, as it is absolutely impossible to foretell the length of life of such persons, but Siredey while refusing diabetes proper, thinks that a number of other "glycosurics" might be accepted on payment of an extra premium. In his address on syphilis, Bayet of Brussels asserted that all subjects in the secondary or tertiary period of syphilis should be refused, and also after all manifestations have disappeared, until three years have elapsed since infection. If the subject received thorough treatment and a year has pasesd without manifestations, four years in all at least since infection, he may be accepted. In case of insufficient treatment, bearing in mind the chronology of syphilitic manifestations, including tabes, no male subject should be accepted under ten years after infection. As tabes is rare in women, an interval of six years is sufficient in their case. Children with a heredo-syphilitic taint should never be accepted under any circumstances. The address on tuberculosis, by Meyer, stated that every person with tuberculosis of any kind should be rejected, and also every one with tuberculous hereditary antecedents who has or has had pleurisy, non-traumatic hemoptysis, recurring bronchitis, scrofulosis, curvature of the spine or rebellious dyspepsia; also every candidate with both parents tuberculous, if under 35 and not absolutely vigorous; also every person who by antecedents or constitution is a candidate for tuberculosis, and every one descended from tuberculous parents who married a tuberculous subject, unless the latter has been dead two or three years and the candidate has been in good health since. Others emphasized the importance of the weight in determining the predisposition to tuberculosis, and also the "index of vitality," that is, the proportion between the girth of the chest at the nipple and the height. Traumatic hemoptysis was also mentioned as a frequent origin for tuberculous infection, and anal fistula as an absolute barrier to acceptance of the candidate, at least until completely healed. Attention was called to the importance of the ocular symptoms in the diagnosis of grave traumatic neurosis: atrophy of the optic nerve was mentioned as a very serious symptom. No neurasthenic should be accepted unless free from hereditary taint, and not exposed to the action of permanent causes liable to aggravate the nervous troubles. As an early symptom of progressive paralysis, a peculiar paresis of the upper branches of the facialis accompanied by exaggerated knee-jerk was mentioned. The subject of an universal medical formula for examiners was referred to a committee to report at the next congress at Amsterdam in 1901.

Queries and Minor Notes.

NEW METHOD OF ADVERTISING.

FREEPORT, ILL., Nov. 3, 1899.

To the Editor:—Thinking perhaps you would be interested in a new method of advertising, I enclose you an advertisement from a ——, Ill., paper, which shows the depraved state of medical ethics.

I am respectfully, J. H. S.

[The advertisement, in its display occupies six inches, a column wide, more space than we care to devote to it. However, we wish to give others a chance to see it, for it is too original to be buried in a small country newspaper. We are sure the Doctor will be very proud when he knows that 16,000 of his fellow-workers are privileged to read that he "traveled 125 miles to do a surgical operation and save a man's life," although, if very much interested, they might want to know whether he did the operation after travelling 125 miles for the purpose.] The advertisement is as follows:

ONE YEAR AGO TO-DAY
I TRAVELLED 125 MILES
TO DO A SURGICAL OPERATION
AND SAVE A MAN'S LIFE.

The man is alive and well to-day, although given up to die at that time by physician attending, as well as the family.

I simply mention this to call your attention to the fact that I can do with success the surgical work which is being, and has been done by surgeons from Chicago and Freeport in this vicinity for years. I am prepared to do all kinds of surgical work and will answer calls at your homes anywhere in this vicinity day or night.

Remember, in addition to all business usually done by physicians, I make a specialty of diseases of the Eye, Ear, Nose and Throat, Surgery and Chronic Diseases.

Your friend, Dr.——.

TEXAS MEDICAL LAW.

CROWLEY, LA., Nov. 10, 1899.

To the Editor:—Will you inform me with regard to the requirements for practice of medicine in Texas? Is there a state board of examiners as in Louisiana and other States? If so, can you give me the address of the secretary of the board; and where the examinations are held and when? Sincerely yours, A. B. W.

ANSWER:—The medical law of Texas requires an examination by a board of examiners which is appointed for each judicial district. We understand that, at least until quite recently, the law has not been very strictly enforced, as there has been much complaint about the laxity, through which all kinds of medical practitioners could obtain license. We can not give the other information, as the boards are local.

CAUGHT BUT BREAKS AWAY.

GLENWOOD, IOWA, Nov. 8, 1899.

To the Editor:—Several months ago I was tendered a certificate of membership and the appointment as a consulting physician of the staff of St. Luke's Hospital, Niles, Mich. Not doubting that the institution was one of merit and good repute, I accepted. On recent information I have returned the certificate to the management, whence I received it, and notified them that my name must not be used in connection with the concern. Truly yours, MINDA A. MCLINTOCK, M.D.

[The above is from a physician who did *not* take the JOURNAL, but received a number containing a recent exposé of the Niles concern. She is *now* a subscriber.—ED.]

BILIARY CALCULI.

COLUMBUS, OHIO, Nov. 8, 1899.

To the Editor:—In a recent issue of the JOURNAL (September 16, p. 750), you allude to the Miesenbach case, in which 1100 calculi were removed from the gall-bladder. On August 30, of this year, I operated on a woman from Delaware County and removed 1318 gall-stones. Some of my assistants were inclined to think this was a record-breaker, but I said that they had better look up the matter in some of their text-books before coming to such a conclusion. This was done, with the result that a number of cases were found in which a very much larger number had been removed. Nevertheless, these large numbers are quite unusual.

J. F. BALDWIN, M.D.

The Public Service.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, Washington, D. C., from November 3 to and including Nov. 9, 1899:

Charles H. Alden, colonel and assistant surgeon-general, U. S. A., member of a retiring board in Washington, D. C.

William B. Bamister, captain and asst.-surgeon, U. S. A., from Fort Warren, Mass., to New York City, thence by the first available transport to Manila, P. I., for duty in the Department of the Pacific.

Dallas Bache, colonel and assistant surgeon-general, U. S. A., member of a retiring board in Washington, D. C.

Alfred E. Bradley, major and surgeon, Vols. (captain and1 asst.-surgeon, U. S. A.), having tendered his resignation is honorably discharged from service in the voluntary army.

John J. Byrne, acting asst.-surgeon, to accompany the 41st U. S. Vol. Inf. to the Philippine Islands on the transport *Logan* sailing from New York City, on or about November 20, 1899, and on arriving at Manila to report for duty in the Department of the Pacific.

John Ryan Devereux, acting asst.-surgeon from Camp Meade, Pa., to Fort Warren, Mass.

Charles R. Gill, acting asst.-surgeon, from temporary duty at Fort Hamilton, N. Y., to Fort Trumbull, Conn.

Lewie A. Griffith, appointed a first lieutenant and asst.-surgeon, Vols, with rank from August 17, 1899, is assigned to the 42d U. S. Vol. Inf.

F. A. Hodson, acting asst.-surgeon, from Fort Logan, Colo., to Fort Mackenzie, Wyo.

William F. James, acting asst.-surgeon from San Antonio, Texas, to duty in the Department of California.

Arthur W. McArthur, acting asst.-surgeon from Fort Niobrara, Neb., to duty in the Department of California.

G. A. McHenry, acting asst.-surgeon, sick leave extended.

Louis A. Molony, acting asst.-surgeon, from Cincinnati, Ohio, to San Francisco, Cal., for duty in the Department.

Harry S. Moore, acting asst.-surgeon, from Indianapolis, Ind., to Jefferson Barracks, Mo., to accompany the 49th U. S. Vol. Inf. to the Philippine Islands.

George S. Pitcher, acting asst.-surgeon, now in New York City to accompany the 43d U. S. Vol. Inf. to Manila, and to report at that place for duty in the Department of the Pacific.

Walter Reed, major and surgeon, U. S. A., member of a retiring board in Washington, D. C.

Clark I. Wertenbaker, acting asst.-surgeon, from duty in Cuba to Fort Niobrara, Neb.

Ezra Woodruff, major and surgeon, U. S. A., relieved from further duty at Fort Trumbull, Conn., and on the closing of the field hospital at Camp Meade, Pa., will report for duty at Fort Hamilton, N. Y.

Movements of Navy Medical Officers.—Changes in the medical corps of the U. S. Navy for the week ending Nov. 11, 1899:

P. A. Surgeon R. G. Brodrick, ordered to Washington, D. C., November 17 for examination for retirement, and then home and to wait orders.

Surgeon O. D. Morton, detached from the *Ranger* and ordered to the *Monadnock* via the *Solace*.

P. A. Surgeon R. K. Smith, detached from the naval hospital, New York, and ordered to the naval hospital, Mare Island, Cal.

Asst.-Surgeon O. M. Eakins, ordered to the Naval Academy.

Asst.-Surgeon W. M. Wheeler, ordered to the naval hospital, New York.

Asst.-Surgeon H. E. Odell, detached from the naval hospital, Mare Island, Cal., and ordered to the *Ranger*.

Medical Director R. A. Marmion, promoted to medical director.

Medical Inspector M. H. Simons, promoted to medical inspector.

Surgeon L. G. Heneberger, detached from the *Indiana*, November 10, and ordered home and to wait orders.

Surgeon W. A. McClurg, ordered to the *Indiana*, November 10.

P. A. Surgeon Costigan, promoted to assistant-surgeon.

Marine-Hospital Changes.—Official List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the U.S. Marine-Hospital Service, for the fourteen days ended Nov. 9, 1899.

Surgeon C. E. Banks, upon expiration of leave of absence to proceed to Boston, Mass., as inspector of unserviceable property.

P. A. Surgeon T. B. Perry, to proceed to Titusville, Fla., for special temporary duty.

P. A. Surgeon C. P. Wertenbaker, to proceed to Atlanta, Ga., and report to the Governor of the State for special temporary duty.

P. A. Surgeon Rupert Blue, relieved from duty at Portland, Ore., and directed to proceed to New York City (Immigration Depot) for temporary duty.

Asst.-Surgeon C. W. Vogel, relieved from duty at Boston, Mass., and directed to proceed to New York City (Stapleton) for duty and assignment to quarters.

Acting Asst.-Surgeon D. E. Dudley, granted leave of absence for 30 days.

Acting Asst.-Surgeon Spaulding Kenan, granted leave of absence for six days.

Surgeon H. R. Carter, to proceed to Miami, Fla., for special temporary duty.

P. A. Surgeon A. C. Smith, relieved from temporary duty at the Tortugas Quarantine station, and directed to proceed on steamer *Powhatan* to the Reedy Island quarantine station.

P. A. Surgeon J. A. Nydegger, to report at Washington, D. C., for special temporary duty. Granted leave of absence for six days. To proceed to Cadiz, Spain, for duty.

P. A. Surgeon E. K. Sprague, granted leave of absence for two days.

Asst.-Surgeon J. B. Greene, granted leave of absence for 21 days.

Asst.-Surgeon S. R. Tabb, to rejoin station at Savannah, Ga.

Asst.-Surgeon J. F. Anderson, granted leave of absence for four days. To proceed to Barcelona, Spain, for duty.

Asst.-Surgeon L. D. Fricks, relieved from special temporary duty at Key West, Fla., and directed to proceed to Miami, Fla., for temporary duty.

Asst.-Surgeon J. W. Schereschewsky, to report to Surgeon L. L. Williams, Immigration Service, New York City, for assignment to duty.

Asst.-Surgeon C. E. D. Lord, to report to medical officer in command, New York City (Stapleton) for temporary duty and assignment to quarters.

Acting Asst.-Surgeon G. A. Gregory, granted leave of absence for five days.

Acting Asst.-Surgeon J. A. Moncure, granted leave of absence for 30 days from November 15.

Hospital Steward F. S. Goodman, granted leave of absence for 30 days from December 1.

PROMOTION.

Asst.-Surgeon J. B. Greene commissioned as P. A. Surgeon.

APPOINTMENT.

Jos. W. Schereschewsky of Massachusetts, and Charles E. D. Lord of Maine, commissioned as Assistant-Surgeons.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended Nov. 11, 1899:

SMALLPOX—UNITED STATES.

Illinois: Chicago, October 27 to November 4, 1 case.
Iowa: Ottumwa, October 1 to 7, 1 case.
Louisiana: New Orleans, October 27 to November 4, 1 case.
New York: New York City, October 27 to November 4, 1 death.
Ohio: Cleveland, October 27 to November 4, 2 cases.
Tennessee: Bristol, October 27 to November 4, 1 case.
Virginia: Portsmouth, October 27 to November 4, 1 case, 2 deaths.

SMALLPOX—FOREIGN.

Brazil: Rio de Janeiro, September 30 to October 6, 70 cases, 58 deaths.
Greece: Athens, October 7 to 14, 7 cases, 2 deaths.
India: Bombay, September 26 to October 5, 6 deaths.
Japan, Formosa: Tamsui, July 1 to August 31, 36 cases, 1 death.
Mexico: Chihuahua, October 21 to 28, 3 deaths.
Russia: St. Petersburg, October 7 to 14, 4 cases, 1 death; Warsaw, October 7 to 14, 3 deaths.
Turkey: Erzeroum, October 1 to 7, 2 cases, 1 death; Smyrna, October 8 to 15, 1 death.

YELLOW FEVER—UNITED STATES.

Florida: Key West, November 1 to 6, 19 cases; Miami, October 31 to November 6, 27 cases.
Louisiana: New Orleans, October 28 to November 6, 15 cases, 6 deaths.

YELLOW FEVER—FOREIGN.

Brazil: Rio de Janeiro, September 30 to October 6, 5 cases, 4 deaths.
Cuba: Havana, October 19 to 26, 24 cases, 4 deaths.
Mexico: Vera Cruz, October 19 to November 2, 6 deaths.

CHOLERA.

India: Bombay, September 26 to October 3, 2 deaths; Calcutta, September 16 to 23, 4 deaths; Kurrachee, September 23 to 30, 1 case, 1 death.

PLAGUE.

Africa: French Ivory Coast, September 16, recurrence; Lorenzo Marques Magudo, September 11 to 18, recurrence.
India: Bombay, September 26 to October 30, 83 deaths; Calcutta, September 16 to 23, 47 deaths; Kurrachee, September 23 to 30, 4 cases, 3 deaths.
Japan, Formosa: Tamsui, July 1 to 31, 66 cases, 65 deaths.
Paraguay: Asuncion, September 14, plague suspected. Has since been officially confirmed.

CHANGE OF ADDRESS.

Bettman, H. M., from 20 W. 9th St. to Groton Bldg, Cincinnati, Ohio.
Byrd, W. F., from 2424 to 2422 Belmont Ave, Baltimore, Md.
Bolling, L. A., from Spencer to Fort Wayne, Ind.
Bushenville, M. J., from Bottineau to Omemee, N. D.
Brennan, T. F., from San Francisco to Los Gatos, Cal.
Bush, G. C., from Chicago to St. Mary's Hospt., Milwaukee, Wis.
Beardsley, J. A., Chicago, to Moline, Ill.
Bernart, W. F., from Waukesha Hotel, to 218 Central Ave, Hot Springs, Ark.
Cross, E., from Barksdale to Del Rio, Texas.
Cross, E. D., from 3142 Prairie to 3745 Albany Ave, Chicago.
Cooper, A. R., from 2818 Armour Ave. to 3121 Dearborn St., Chicago.
Chapman, W. S., from Rouse to Pryor, Colo.
Dunning, Jesse, from 333 Lincoln Ave. to 1221 Belmont Ave, Lake View, Chicago.
Evans, J. M., from Corpus Christi, Texas to E. de Zacatecas, San Pedro de Ocampo, Mexico.
Ewing, E. W., from Chicago to Spikard, Mo.
Fridus, S. L., from Ashland Boul. and Taylor St. to 661 W. 14th St., Chicago.
Geary, E. P., from 138 Whitaker to 820 Corbett St., Portland, Ore.
Guthrie, F. A., from Aledo to 716 1st St., La Salle.
Grively, H. F., from Norwood, Minn. to Hohenwald, Tenn.
Gant, S. G., from Kansas City, Mo. to 28 E. 47th St., New York City.
Hartung, C. J., from Wabash Ave. and 22d St. to 26th and Canal Sts., Chicago.
Holladay, F. S., from 42 Winder St., Detroit, Mich. to Los Gatos, Cal.
Hunt, P. W., from 100 State St. to Lexington Hotel, Chicago.
Kenefick, T. A., from Newport, R. I. to 29 W. 36th St., New York City.
Leavell, H. N., from Amissville, Va. to 1700 Preston St., Louisville, Ky.
Massey, G. B., from 1036 to 1636 Walnut St., Philadelphia, Pa.
Norwood, F. H., from 5085 Wells Ave. to 4643 Brilliante St., St. Louis, Mo.
Noble, T. B., from 13 W. Market to 19 W. Ohio St., Indianapolis, Ind.
Nottage, H. P., from 14 Stamford Ave, Providence, R. I. to Goshen, Mass.
Peterman, H., from Chicago to Marshall, Texas.
Porter, Lieut. R. S., Asst.-Surgeon 31 Inf. U. S. Vol., from Chicago to Manila, P. I.
Pinault, N. J., from Minneapolis, Minn. to Pass Christian, Miss.
Parker, J. V., from LaSalle, Ill. to Saginaw, Mich.
Palvis, A. S., from March, S. D. to 725 120 St., Pullman Station, Chicago.
Rowe, M., from Deal's Island to 1835 E. Baltimore, Md.
Reynaud, L. T., from 135 Baronne to 1238 Josephine St., New Orleans, La.
Rousch, F. L., from New Haven, W. Va. to Pomeroy, Ohio.
Simpson, L. B., from Pavonia to Marion, Ohio.
Sampson, E. S., from North Syracuse to Mexico, N. Y.
Smith, F. C., from Waterloo to Wesley, Iowa.
Scott, W. A., from Swanton, Ohio to Thomasville, Ala.
Simpson, W. B., from Sabethany, Texas to 1312 Canal St., New Orleans, La.
Sholars, L. A., from Ruston to 2236 Reytania, New Orleans, La.
Sibley, R. B., from Clarksburg, W. Va. to Aspen, Colo.
Turner, E. W., from Hunter to 18 W. 4th Ave, Columbus, Ohio.
Vedeler, C., from Locust, Iowa to 618 S. 11th St., Denver, Colo.
Weeks, A., from Allegan, Mich. to U. S. Marine Hospital, Chicago.